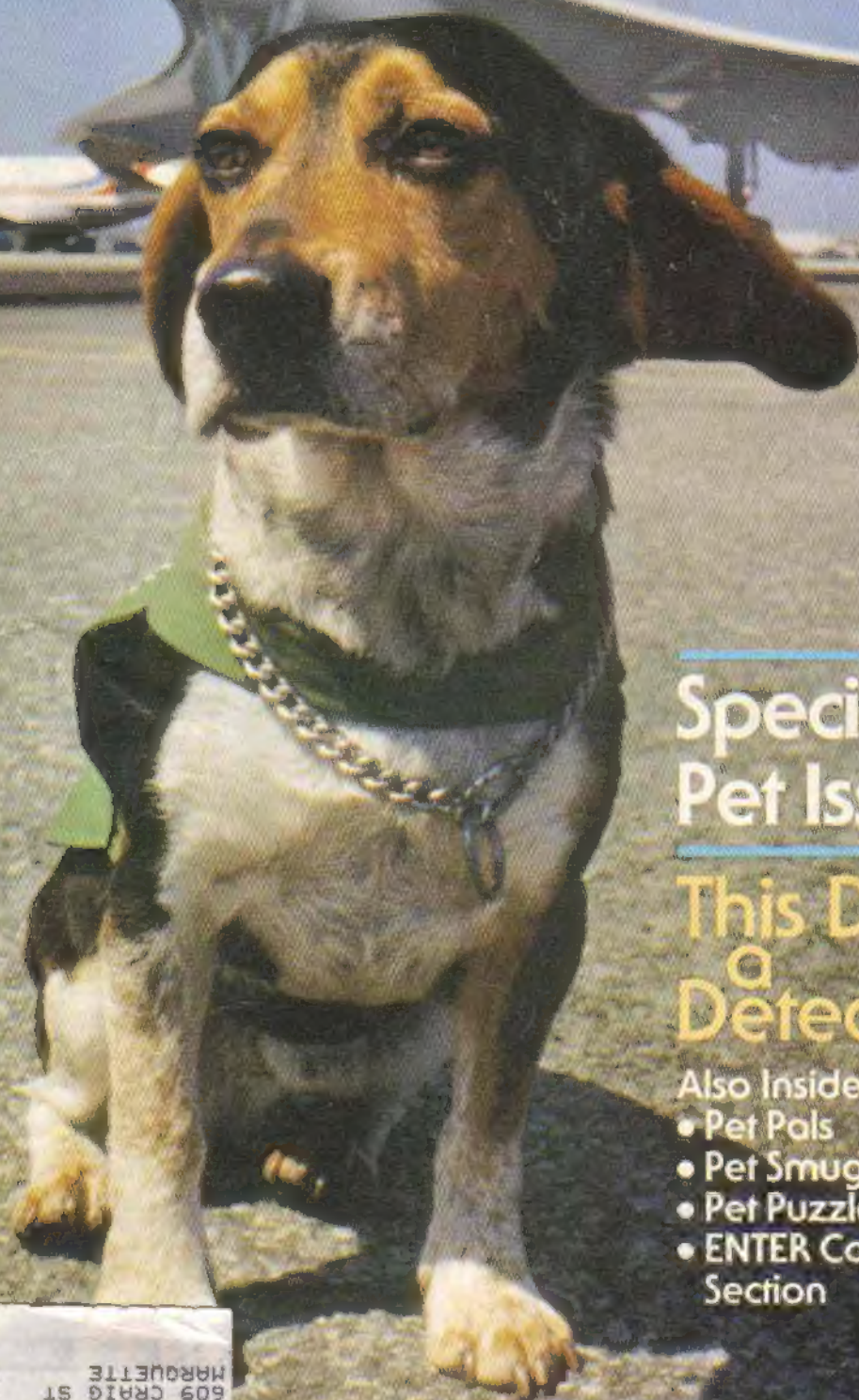


3·2·1·Contact®



Special Pet Issue

This Dog's a Detective!

Also Inside:

- Pet Pals
- Pet Smugglers
- Pet Puzzlers
- ENTER Computer Section

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The Bear Facts

Meet Wei Wei (Way Way). He's a 13-year-old panda who does tricks and stunts in China. One of his tricks is eating food with a fork and knife (instead of chopsticks).

Of course, not all pandas use knives and forks—or even chopsticks, for that matter. In fact, Wei Wei is the only panda we know who

uses tools for eating. Other pandas use their paws to get bamboo up to their mouths.

Besides eating with a fork and knife, Wei Wei does other things most pandas don't do. He rides a bike and plays a horn, too. How would you like to see him pedaling up the street playing "The Power of Love"?

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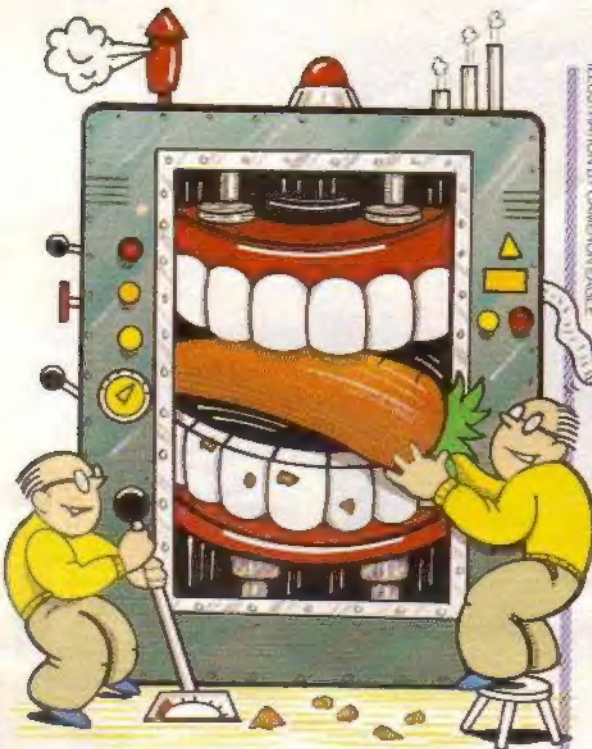
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Cover Photo © Kimberly Butler



Mighty Mouth

False teeth are nothing new. They've been helping folks chew for hundreds of years. But have you ever heard of a whole false mouth?

Now you have. The "artificial mouth" is six feet tall. It can't smile. It doesn't have lips, or a tongue or even a full set of teeth. In fact, it doesn't look like a real mouth at all. It looks like two giant metal tubes with teeth at the end of each one.

Those teeth are what the mouth machine is all about. It tests the teeth by chewing and grinding and squirting food and liquids at them.

In one day, it gives teeth as much wear and tear as a real mouth dishes out in a whole year. Computers measure the teeth before and after their workout in the artificial mouth.

Scientists will use the artificial mouth to try out new types of fillings, to study real teeth and to test—what else?—false ones.

Tiny Dino

You probably think of dinosaurs as creatures as big as trees, stomping through prehistoric jungles. Well, some were. But now scientists have found signs of dinos as small as a tiny bird.

The evidence is in 200,000,000 year-old footprints that the little critters left in Nova Scotia, Canada. Each print is no bigger than a penny. That means that the feet that made them belonged to an animal the size of a sparrow.

But if the footprints are so small, how can scientists be certain they weren't left by baby dinosaurs, instead of tiny adults?

"We can't," says Dr. Paul Olsen, a leader of the team that found the footprints. No one will know for sure until tiny bones are found to match the tiny three-toed footprints.



PHOTO: DONALD BAIRD/PRINCETON UNIVERSITY

Finding The Way

Road maps are great. The only problem is figuring out where you are. But not for long.

Now there's a computer that knows—and shows—where your car is and where you're headed. Map information shows up on a video screen next to the driver's seat.

The computer changes the map 60 times a minute. Your

car's location is always right in the middle. (Gadgets attached to the wheels tell the computer about the car's movements.)

You never have to wonder where you're headed either. Just look for the flashing star!

ILLUSTRATION BY JULIE SCOTT



Cold Power

There's a new toy boat and it's powered by ice.

Ice? Yup. Put an ice cube in a Cool Craft and it will putter along for 10 minutes or so, without batteries.

The secret is a built-in loop made of "nitinol." That's a kind of metal that bends when it gets cold and straightens when it warms up.

The ice in Cool Craft is always colder than the water the boat floats in. The temperature difference keeps bending and straightening the metal. That makes the loop rotate, and that keeps the boat's propeller turning—until the ice cube melts.

Head Trip

Imagine being in space or deep inside a volcano. Imagine being inside a nuclear reactor or inside a video game.

NASA, the U.S. space agency, is working on a new helmet that can make you feel like you're there—or anywhere.

When you put the helmet on, each of your eyes looks into a separate video screen. The two images come together in your brain, so you see a picture in 3-D. Move your head and the picture changes. You can look up, down or even behind you.

The video picture can be drawn with a computer. That way, you can "visit" an imaginary place, like an orbiting space station.

The picture can also come from cameras in the "eyes" of a robot. You'll see what the robot sees—no matter how far away the robot is, or how dangerous that place may be.

In NASA's experimental video helmet, your eyes are covered, but you still see the most amazing things.

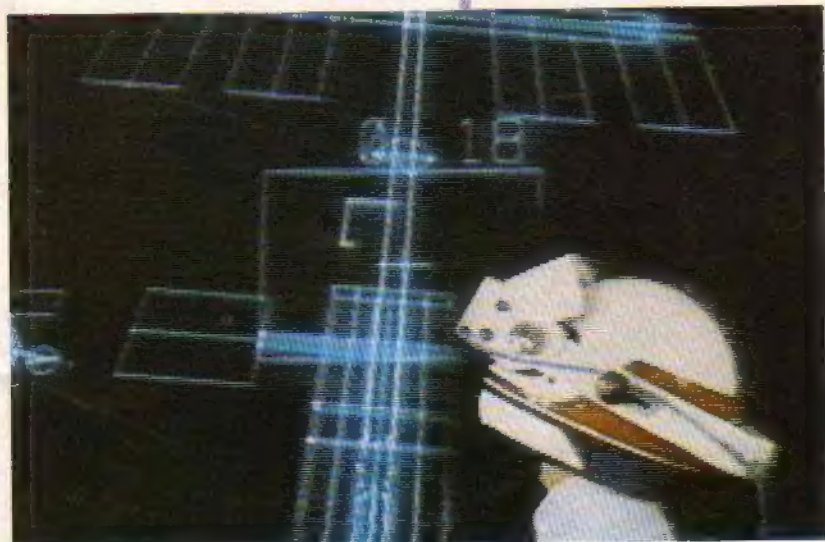


PHOTO BY SCOTT FISHER

ILLUSTRATION BY RICHARD WELLS



Counting High

When a blimp pilot says "Fill 'er up," he gets a blimp-ful of helium. But how much helium is a blimp-ful? The right answer won three kids a trip to Epcot Center at Disney World, complete with a blimp ride.

More than 1,400 high schoolers worked on the problem, which involved some serious math and science thinking. Some 565 got it right. The winners were chosen in a random drawing.

Oh yes—the answer. To fill the Goodyear Blimp, you need 129,000,000,000,000,000,000,000,000,000,000,000,000,000,000 helium atoms. Bet you knew that!

An Egg-cellent Idea

How long do you boil a four minute egg? Four minutes, right? But what if you don't have a clock? You need the nifty new egg box invented in England.

One egg fits inside each clear plastic egg box. No matter how the box is banged or battered, the egg inside won't break.

When it's time to boil the egg, you drop the whole box in boiling water. Two minutes later, the clear plastic turns yellow.

Another minute and it turns green. A minute after that, it's blue.

Presto! A perfectly cooked breakfast, and you don't need a clock—only a rainbow.

ILLUSTRATION BY MARTI SHOFER



So What's New?

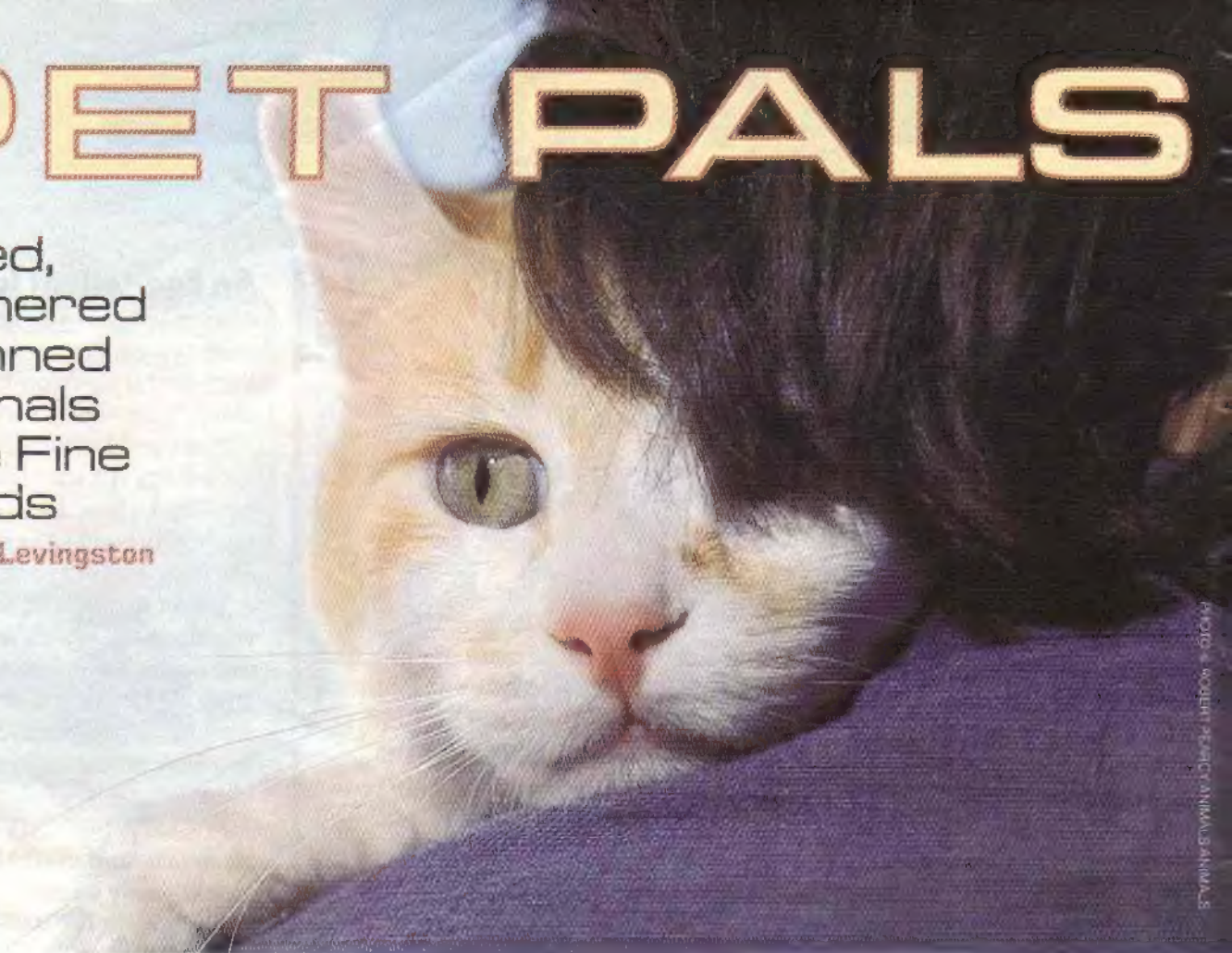
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PET PALS

Furred,
Feathered
or Finned
—Animals
Make Fine
Friends

by Steven Levingston



When Risa Goldman throws a birthday party for Shayna, it's a real bash. "We get a cake, invite over my grandparents, and have a big dinner," says Risa, 13, from Stony Brook, New York. "Shayna gets presents—toys and treats."

It sounds like the usual birthday party someone might throw for a member of the family. And it is, except for one big difference. Shayna isn't human. She's the Goldmans' pet Welsh terrier!

The way that Risa and her family feel about Shayna is not unusual. In a recent survey, people were asked whether they thought of their pets as family members. Eighty-seven percent said they did. Like the Goldmans, 38 percent said they celebrated their pets' birthdays.

Pet researchers have found that having a pet is good for everyone in the family. Just ask Dr. Leo Bustad of Washington State University. He is a veterinarian—an animal doctor—and a leader in pet research.

Dr. Bustad says that a "pet gives kids and adults someone to tell their troubles to. It may not be able to help in telling you what to do, but sometimes just getting out the words can make a person feel better."

Of course, talking to animals should never

take the place of talking to humans. But talking to pets is very common. In one survey, 99 percent of the people asked said they talked to their pets. Usually they kept the chats brief. (After all, just how much can you say to a goldfish?!)

"I tell my dog how good or bad she's being," says Risa Goldman. "And how cute she is."

Pet Helpers

Pets also help kids and adults in many other ways. Doctors have found that just stroking the soft fur of a dog or cat is relaxing and can lower blood pressure. This is especially good for people who get excited or upset easily.

Pets can also put people's minds at ease. Some dentists are putting tanks of tropical fish in their waiting rooms. They've discovered that patients usually get a little nervous while waiting to "open wide." So dentists have taken the advice of some pet researchers who discovered that people relax while watching fish swim in a tank.

"Watching my fish sure helps me to relax," says Walter Kelley, 11, of Albany, Georgia. "There's something soothing about watching the fish swim lazily back and forth. They really help me to unwind."

Taking the Dog Out

Children learn more from some pets than from others. Bob Poresky is a professor at Kansas State University. He has done a lot of research on animals as companions. He believes that active pets make better companions. "Pets that respond more have more of an effect on people," he explains. By his standards, dogs and cats make the best pets. "Goldfish don't score too high," he laughs.

"A pet can teach a child to be responsible," says Bob Poresky. Sometimes the dog has to go out right in the middle of "The Cosby Show." And someone has to take him out.

Sometimes you wind up feeding the cat when you're sure it's your brother's turn to do it. And there are those times when the hamster cage just has to be cleaned even though you can think of a million better things to do. (Even cleaning up your room may be more appealing!)

Researchers like Bob Poresky say a child →

Right: Some people have iguanas as pets, while others have parrots (*below*).



A horse can be a kid's best friend on the wide-open spaces of the U.S. West.



learns a lot by answering the needs of a pet. "Kids see things from their own point of view," he says. "And they think it's the only point of view. Pets can help them see that there are other needs and other points of view."

"I like looking after my dog," says Barbara Charles of New York City. "It makes me feel needed, and I get a good feeling knowing that someone depends on me." Not only is Barbara's dog getting something from her, she's getting something from her dog. Pets rely on their owners in order to survive. Researchers say that a child who takes good care of a pet usually feels good about himself or herself.

Animal Help

Sometimes pets are used to help people in unusual ways. Playing with a dog often makes it



Above: For some older people, pets serve as loving companions.

Left: This Yorkshire terrier and his owner get along "swimmingly."


Below: Who's getting wetter—the kids or the dog?

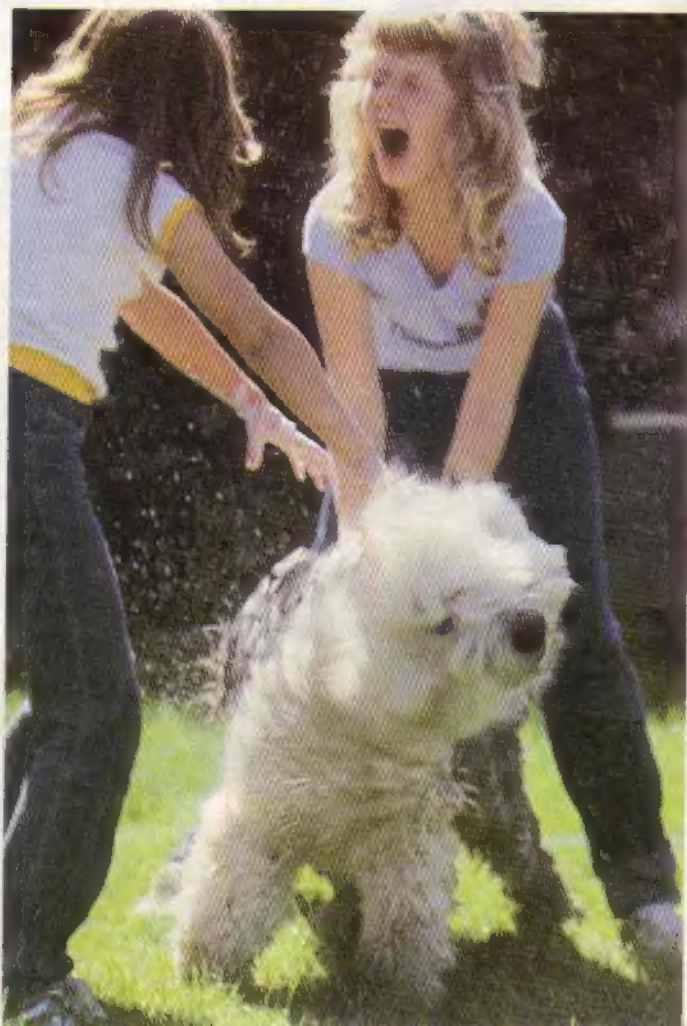


PHOTOS © ROBERT PEARCE/ANIMALS & ANIMALS

easier for some children with problems to talk to adults. People in jail who are allowed to keep pets sometimes become less angry and mean. Older people who spend a lot of time alone find pets to be their closest friends.

One study shows that seriously ill heart patients who owned pets lived longer than heart patients who did not have pets. This may be because pets helped these people to relax.

But above all, no matter what kind of pet a person has, it can be fun. Pets are always there for you when you need them. As Risa Goldman says about her dog, Shayna, "She cuddles and plays with me. She's always there and I always hug her." 



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PRETTY PASTELS



Factoids



On the average,
a 4-year-old child asks
about 437 questions a day.

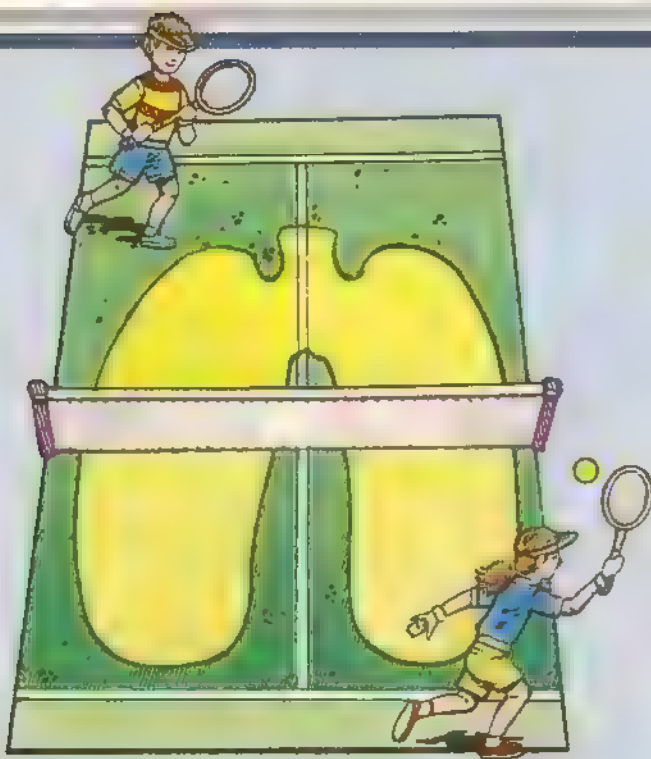


It's against the law in California
to set a trap for a mouse
unless you have a hunting license.

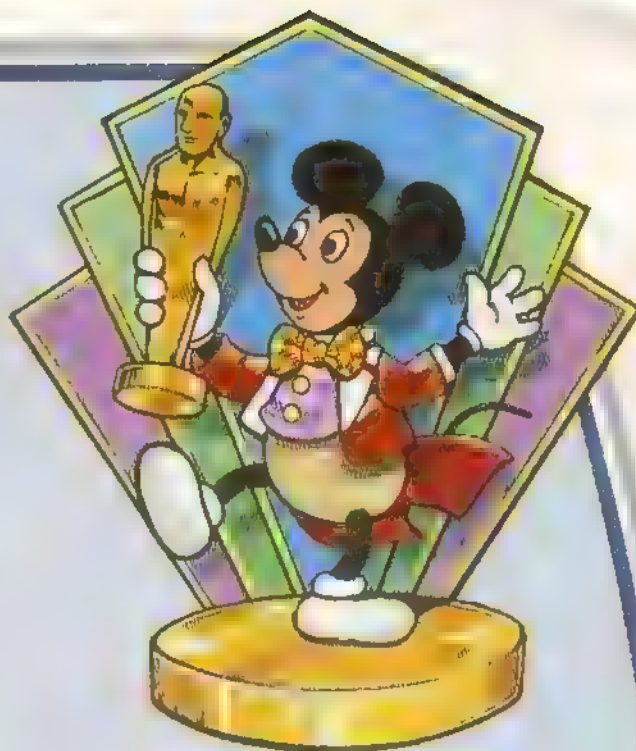


Robert Louis Knecht, 13,
did 7,026 consecutive
push-ups in 3 hours and 56
minutes—a world record.

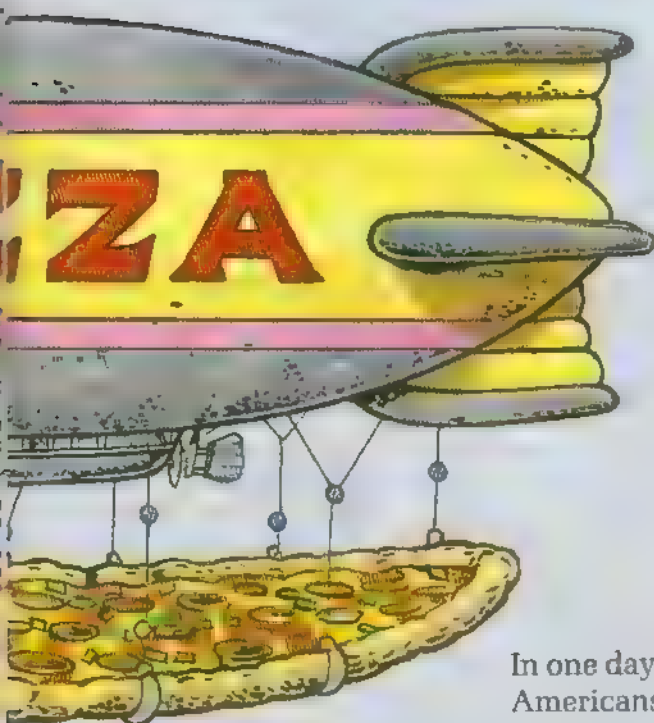




If your lungs were opened up and laid flat, they would cover an area the size of a tennis court.



In 1932, Mickey Mouse became the first and only non-human to win an Academy Award.



In one day, Americans eat enough pizza to cover 75 football fields.

The longest word in the English language is pneumonoultramicroscopicsilicovolcanoconiosis. It's the name of a lung disease that some miners get.





Nosing Around

★ U.S. AGENT JACKPOT KNOWS THE SMELL

It's a typical day at John F. Kennedy International Airport in New York City. Planes are landing from all over the globe. Officials are checking passports. Passengers are pouring into the arrivals hall, rushing around, waiting by the conveyor belt for their luggage. And a detective named Jackpot is hard at work.

Jackpot is no ordinary detective. He sniffs suitcases. Because of his unusual method, people often stare at him. A young girl pulls on her mom's coat sleeve: "Look!" A lady nudges her husband: "Do you see what I see?" A woman with a big blue suitcase smiles and asks Jackpot, "Do you shake hands?"

Jackpot is silent. His partner, Hal Fingeraman answers for him: "No, he just works."

Hal and Jackpot are a team—one at each end of the leash. For Jackpot is a beagle, and Hal, a Department of Agriculture officer, is his handler. Together, they hunt down food for the U.S. government.

The two detectives don't hunt down just any food. They look for dangerous food. Seven and a half million people fly into Kennedy Airport from overseas every year. Many bring food along—

to eat themselves, to sell, or to give as gifts.

Most of the food is fine. But some types carry bugs or diseases that could harm fruits and vegetables. That's dangerous food. Hal, Jackpot, and 1,500 other Department of Agriculture (USDA) inspectors want to keep these bugs and diseases out of the U.S.

How dangerous is the food? In 1980, a traveler brought in a piece of fruit carrying a Mediterranean fruit fly. Before long, "medflies" were eating up fruits and vegetables in backyard gardens all over California—everything from avocados to watermelons. It took two years and \$100,000,000 to get rid of them. (Luckily, the flies never got the goodies growing on California's big farms.)

Super Sniffer

It's tough to find dangerous food. Inspectors can't search every single suitcase. Too many people come in every day, carrying too much luggage. Few travelers realize that bringing in food can cause problems. And no machine can detect meat or fruit inside a package. The answer? Beagles!



What have you got in there?
Detective Jackpot leaps up
for a closer sniff

OF TROUBLE ★ by Russell Miller



"We can go to the moon, but we can't make a machine that smells as well as a dog's nose," Hal told CONTACT. "And don't let people tell you the bigger the dog, the better it smells. It doesn't matter. A beagle's sense of smell is just as sensitive as a big dog's."

For years, large dogs like Labrador retrievers have sniffed baggage, as long as no passengers were around. But big dogs make some people uncomfortable. Beagles don't.

"Everybody loves a beagle," explains Gary Snyder, a USDA official. "People don't like to be inspected, but they don't mind being pulled aside when a little dog suspects something."

On The Prowl

Jackpot walks through the airport, sniffing the air for the scent of citrus fruit, meat or mangoes. When he smells his target, he gives Hal a simple signal: He sits down next to the suspicious suitcase. Hal gives him a bit of food—a reward for a job well done—then checks out the find.

Sometimes, Jackpot sits right down. That means he's certain there's something suspicious inside the suitcase. Sometimes he sits down slowly. That means he thinks he's found something, but the scent's not strong.

"It could be a leftover smell," says Hal. "Maybe the person was eating a sandwich while he was packing. Maybe there was something in there ➡"

the last time the person traveled."

Hal has the suitcase searched before it leaves the airport. That's Jackpot's moment of truth. He may be right even if there's no food inside.

"Say the dog detects lemon-lime shaving cream. Even though it's not illegal, I know Jackpot is doing his job well," Hal says.

Jackpot and Hal first got together in Texas, at the U.S. Air Force training school for dogs and their handlers. The school trains dogs for all sorts of jobs—from sniffing out explosives to sniffing out food.

For three months, they worked together, as Hal trained Jackpot to recognize his target scents and to sit when he found them. (Sitting fast and slow is Jackpot's own idea—his special way of

"talking" to Hal.)

Even though the course is over, the training goes on. Hal often plants a suitcase with a piece of meat inside somewhere in the airport. That way, Jackpot gets practice even if no one tries to bring in dangerous food. And, since there are other dangerous foods besides citrus, mangoes and meat, Hal teaches new scents to Jackpot.

A Dog's Life

Most working dogs live in kennels, but not Jackpot. He lives at home with Hal. So does Behr, the Labrador who works with Hal outside the passenger terminals. And so does Bree, Hal's friendly mutt, who doesn't work at all.

Every morning, Hal grooms them, brushes



Jackpot sits down when he suspects he's found food. Here, he sits by a suitcase packed with raw, red, illegal meat.

Jackpot examines a day's catch in the airport laboratory. Inspectors often find fruits, vegetables and cartons of milk.



Right: Hal and Jackpot take an early morning jog along the beach near their home.

Below: Behr, the Labrador retriever, searches luggage on a behind-the-scenes conveyor belt.




pilots, flight crews and, of course, other USDA officers.

"Everyone loves the dogs. They get lots of attention. It's as if the dogs were with a family 24 hours a day," says Hal.

Detector beagles like Jackpot are working at international airports all across the United States. They're teaching travelers about the problem of agricultural pests. The beagles have found 50 percent more dangerous food items in luggage than human inspectors have. They're so successful that other countries such as Holland and Japan may start using beagles.

And the dogs seem to like their work. Just watch Jackpot in his bright green jacket, sleeping in the back of Hal's car. Up comes Hal, holding the long leather leash. Jackpot wakes and stretches. His tail wags with excitement.

"Are you ready to go get 'em?" Hal asks, hooking the leash to Jackpot's collar. The beagle leaps to the ground. Then, dignified and business-like, he waddles off to work, set for another busy day sniffing luggage for his country. 

their teeth (with regular toothpaste!) and feeds them their vitamins. Next, Hal and all three dogs go jogging on a nearby beach, then it's off to work—with no breakfast for Jackpot or Behr. Hal keeps the dogs a little hungry during the day so they'll work harder for their food rewards. At night, they each get a carefully measured serving of special high-energy dog food.

The working dogs know when they're off-duty. "When they're at home," says Hal, "if I put a piece of fruit on the ground, they won't do anything."

Hal doesn't pet Jackpot and Behr much—even at home. But everyone else does: passengers,

Any Questions?

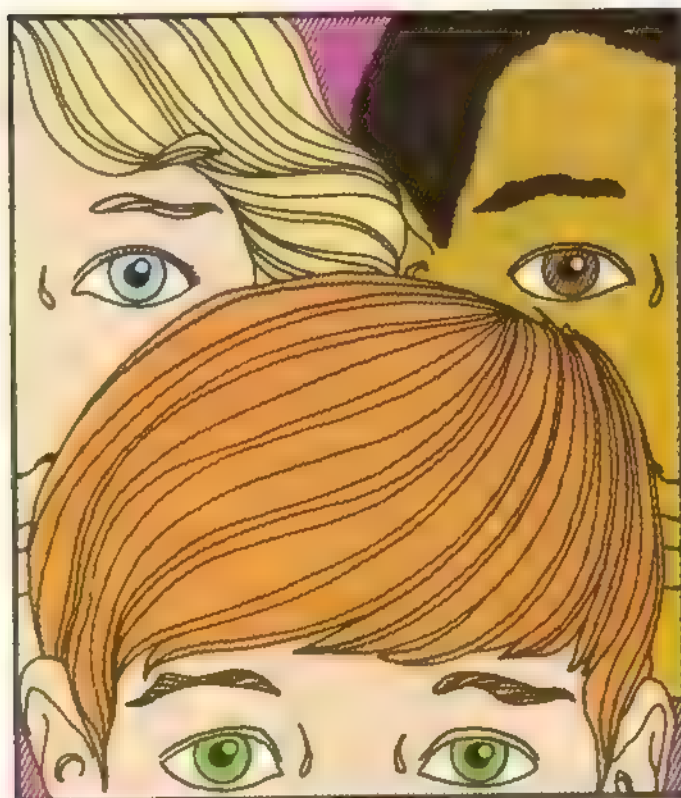
Why do dogs hear high pitched noises which people cannot hear?

When someone blows a "silent" dog whistle, you don't hear a thing. But your dog sure does. Dogs can hear certain sounds a lot better than people can.

Your dog's ears look very different from yours. But they work the same basic way. A dog's hearing—and yours, too—takes place in a small tube deep inside the ear. Within this tube are nerve cells. They send sound messages to the brain. A dog's nerve cells are more sensitive than yours. They can pick up some sounds when yours can't.

Sounds travel through the air as invisible waves. These waves move back and forth, making tiny flutters called vibrations. The faster a sound wave vibrates, the higher the sound is. The sound waves coming from the dog whistle vibrate very fast. The sound is higher than your ears can bear. But your dog's ears can easily pick up the noise. Woof!

Question sent in by Don Petty, Garland, TX.



Does the color of your eyes affect your vision?

The color part of your eye is called the iris (EYE-riss). It surrounds the black spot in the center of your eye—the pupil. Your pupil is really a hole in your eye that lets in light. The iris works with your pupil to make sure the right amount of light gets into your eye.

As long as you have normal vision, you can see just as well as anyone else. It doesn't matter whether your eyes are brown, blue, hazel, green or violet. But the lighter your eyes are, the more sensitive they are to bright light. And the easier light can get through your iris. That's why someone with blue eyes probably will squint in the sun a little bit more than someone with brown eyes.

There's no way you can change the color of your iris to make it keep more light out. But you can always try sunglasses!

Question sent in by Helen Shaughnessy, Needham, MA.

Do you have a question that no one seems able to answer? Why not ask us? Send your question, along with your name, address, and age, to:

Any Questions?
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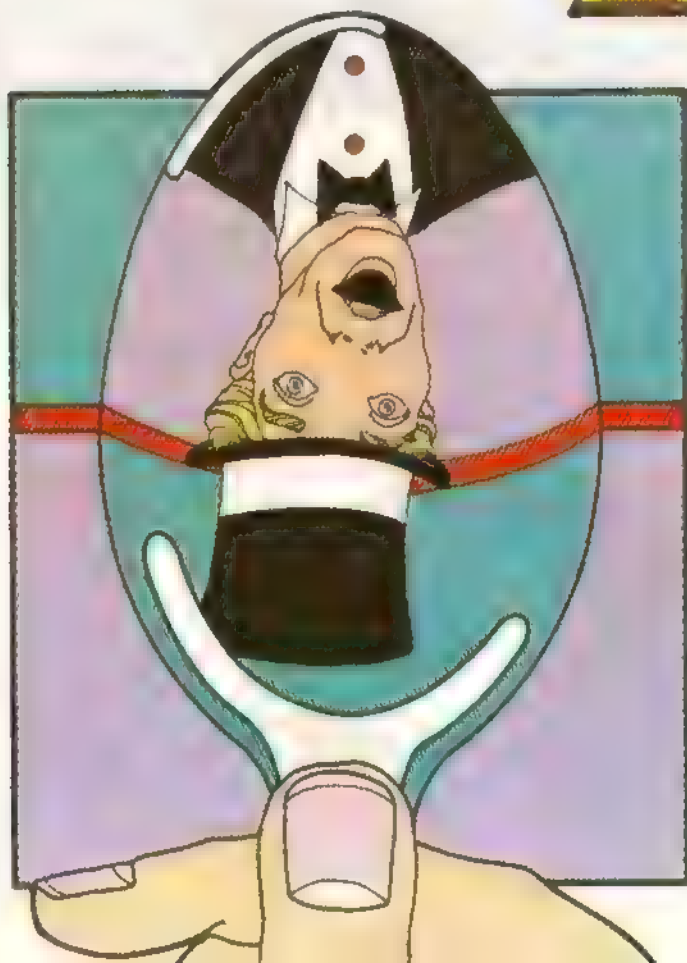
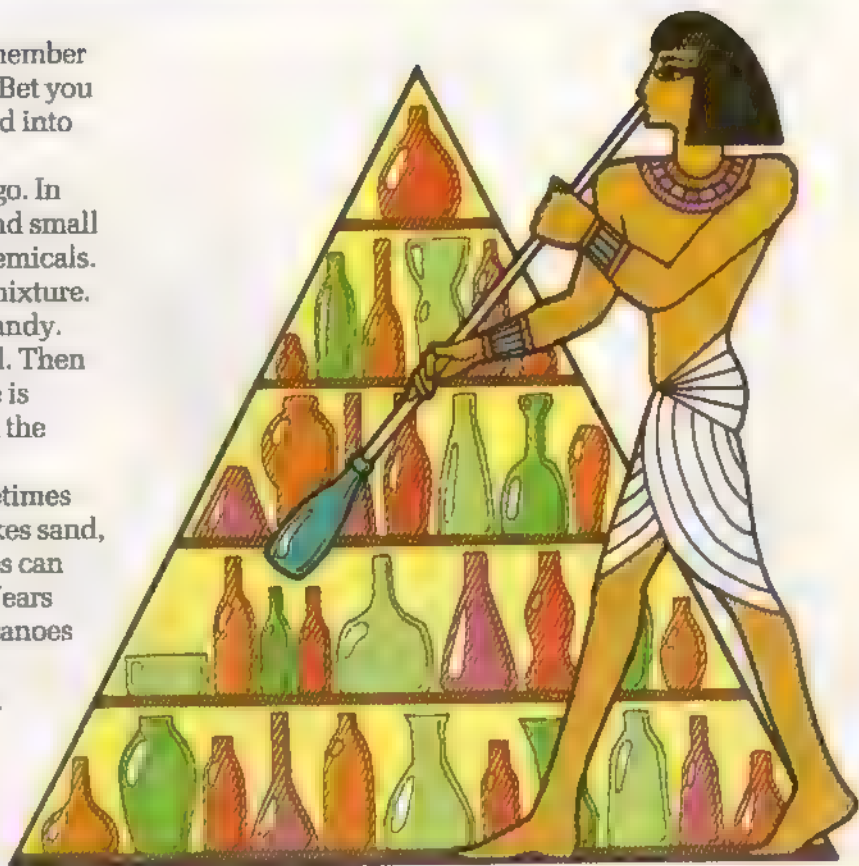
What is glass made of? Remember the sand you saw at the beach last summer? Bet you didn't know that the gritty stuff can be turned into sparkling glass!

Glass was first made thousands of years ago. In Egypt, people began making glass jewelry and small bottles. They used a mixture of sand and chemicals. Most of today's glass comes from the same mixture.

Making glass is a little like making hard candy. First, the sand, like sugar in candy, is melted. Then the other chemicals are added. This mixture is heated until it is very hot and syrupy. When the syrup cools, it becomes glass.

People aren't the only glass makers. Sometimes nature gets into the act. When lightning strikes sand, it can create long, thin glass tubes. Volcanoes can also form glass by melting sand and rocks. Years ago, California Indians used glass from volcanoes to make arrowheads, knives and jewelry.

Question sent in by Lincoln Palsgrove, New York, NY.



When you look into a spoon, why are you upside down? Look into a mirror and what do you see? A charming, good-looking kid. Look into a shiny spoon and what do you see? A charming, good-looking, upside-down kid!

When you look at a flat mirror, you see a reflection. Light bounces off you and onto the mirror. Then it bounces back into your eyes. Nerves in your eyes send messages to your brain. That's how you understand what you are seeing. Simple, right?

Not always. If you have ever looked into a fun house mirror, you know your eyes can sometimes play tricks on you.

A spoon is curved, and light bounces off curved things in a special way. In this case, the light from your reflection enters your eyes upside down. The message that is sent to your brain makes you see yourself upside down. Like magic, you look as if you are standing on your head.

Question sent in by Maryam Haddad, Salem, NH.

Troubles in "Parrot- Dise"

**PET
SMUGGLING
IS BAD
BUSINESS**

by Renee Skolton



The officials at the border between the U.S. and Mexico were suspicious. Two people waiting to enter the U.S. looked tense and nervous. They were carrying two loaves of bread. It might have been their lunch, but something about the bread didn't look quite right. The officers took a closer look. The loaves were hollow. When the officials opened up the bread, they discovered a small, live bird stuffed inside each one! The birds were being smuggled into the U.S. to be sold as pets.

A few months later, a woman was caught trying to sneak across the border with a live bird under her dress. She gave herself away when the bird bit her and she screamed.

Sneaking animals into the U.S. is a big business. That's because unusual animals like parrots and lizards have become popular as pets. Now some of these species are in danger of

dying out because so many have been captured for the pet trade.

In many countries, catching and selling endangered species is against the law. So the only way to supply these animals to the pet market is to sneak them illegally into the U.S.

Help is on the way, thanks to a group named TRAFFIC. TRAFFIC is an organization that keeps track of animal trade all over the world. According to TRAFFIC, as many as one-third of the millions of animals traded around the world each year come and go illegally. Most of this trade is in brightly-colored parrots, unusual lizards, snakes and tropical fish.

The Parrot Trail

Many of these animals are smuggled into the United States. But many more animals are "laundered." That doesn't mean they're washed



until they're squeaky clean. It means some animals come into the U.S. with false papers. The papers say the animals are being sent legally when they are not.

One laundering scheme might go like this: The scarlet macaw is endangered in Costa Rica. So Costa Rica does not allow that bird to be sent out of the country. Other countries, such as nearby Panama, have more scarlet macaws. So they allow traders to send out the birds.

Dishonest traders might catch scarlet macaws in Costa Rica. Then they'd make up false papers saying the birds were caught in Panama. U.S. officials could be fooled into thinking the birds were caught legally.

If the sneaky smugglers are caught, they could go to jail—or have to pay a big fine. But most smugglers think risking jail is worth it. If they don't get caught, they can make lots of money

In our scene above, the “smuggler” gets caught as he tries to sneak in a military macaw among other animals.

selling animals to people who want unusual pets. (Some parrots sell for as much as \$10,000.)

“There are some types of birds in the Caribbean that are really on the edge of dying out,” Ginette Hemley, a TRAFFIC official, told CONTACT. “The birds are so rare and beautiful that some people will pay a lot for them. So smugglers are adding to the pressures on these birds.”

The journey the birds take from their tropical forest homes is often hard. Some are drugged to keep them quiet during shipment. Some are tied up tightly with their beaks taped shut. Smugglers hide birds in everything from car hubcaps to hollowed-out watermelons.

Between 1980 and 1984, 4 million birds were brought into the United States. About ➡



Common green

Parrot snake

775,000 of those birds died on the journey or shortly after they got here. The dishonest traders don't care if even half of the animals die. They can still make lots of money on the rest.

The strange part is exotic birds are not the best pets. They are used to the wild, not to a cage. They scream at dawn and dusk as they do in the jungle. They also have powerful beaks. They use them in the forest to eat nuts and seeds. In a home, those beaks can destroy cages or furniture or even bite their owners.

More than Parrots

Hundreds of thousands of reptiles—mostly lizards and snakes—come into the U.S. illegally each year, too.

They are easier to smuggle than birds. They are cold-blooded animals so their body systems work at a slower rate than birds. They can be

hidden for a long time without being harmed.

Some reptiles are also used to hide the smuggling of other animals. "Often they send poisonous snakes in false-bottom crates," says Ginette Hemley. "Inspectors can't or don't want to check these snakes out because they're dangerous. What officials don't know is that other reptiles are hidden underneath."

Problems with reptiles often start when people get them home. The reptiles eat unusual things. Lots of times they die because people don't know how to care for them properly.

"Do you know where these fish are from?" That's an important question to ask a pet store owner. Freshwater fish like guppies and mollies are usually raised and traded legally. But many saltwater fish like butterfly fish, angelfish and seahorses come from coral reefs in the Pacific Ocean.



Black spider monkey

Divers catch these fish by squirting coral reefs with a mixture of cyanide and water. Cyanide is a deadly poison. In small amounts, it only stuns the fish. Then they float to the surface. The divers can just scoop them up and put them in containers to send to the U.S.


Many fish die from the poison right away. But even the survivors still have poison in them. It may kill them weeks later—after they have been bought as pets.

People who buy fish should look for those that are raised on fish farms especially to be sold as pets. Many of these fish farms are in Florida and Hawaii.

Banding Together

Ninety-one nations (including the U.S.) have gotten together to try to stop this illegal trade. They say that endangered species can only be

traded in small numbers—or not at all. This may help some animals to live.

The problem is big. But Ginette Hemley says it can be solved. “You’ve just got to ask questions when you buy a pet,” she says. There are plenty of unusual animals that are brought into the U.S. safely and legally. It’s up to the pet buyer to know what he or she is buying—and where it came from. The future of many animals depends on it. 

You Can Help!

For more information on the illegal pet trade and what you can do, write to:
TRAFFIC (U.S.A.)
1255 23rd Street, NW
Washington, D.C. 20037

Kooler News



Kooler
News
in History

NEAT TREAT

Christian Nelson owned an ice cream parlor in Iowa. He sold candy and ice cream. One day, a kid came in to buy something. He couldn't decide whether to have a chocolate bar or an ice cream sandwich. This gave Christian a brilliant idea. "I'll put the two together," he thought. And he did. The result was a chocolate covered ice cream bar. Desserts have never been the same since.

You know
you're
Kooler
when...

I didn't
Know that!
Astronauts don't snore
when they're weightless
in space.

Kooler Kids



Cathy Kaminsky was the Strikeout Queen of Ramsey High School in New Jersey. Her fastball took out 1,020 batters and earned her a scholarship to Penn State. "It's not so much strength as talent," Cathy says, although she jogs every day and works out to stay in shape.

If you're a Kooler Kid or know of one,
send us your photos and letters.



Ask Dr. Know

Dear Dr. Know,

Everything changes so fast! How can I keep up with what's cool and what's not?

Your friend,
Confused

Dear Confused,

If you think being cool means doing what everyone else is doing, then you might as well be a cow. Cows just stand around all day and chew.

What's cool is up to you as long as you don't hurt anyone or make your parents mad. You may like to put potato chips inside or watch TV with the sound off, that's cool too. Being cool means being yourself.

Mail your Kooler questions to Dr. Know.



You don't forget the combination to your locker

Mail us your ideas!



READY, SET, GLOW

●●● Neon is so hot it's cool. Neon signs, neon ropes, neon shoelaces, neon bracelets.

Wear it, watch it, tie it... **EAR GEAR**

●●● You've got two ears, but that's not news. What is news is wearing two different earrings—one short and simple, one long and dangling... **FIT FASHIONS**

●●● Guys in the gym are getting in shape in tight, bright bicycle shorts, two pairs of socks, one tight, one floppy and ripped up T-shirts...

WRIST WEAR ●●● It's time to wear three watches on the same wrist. Only one has to work... More Hot Stuff next month...

Send your photos and letters to:

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THE BLOODHOUND GANG

The Case of the Super Sniffer

by Becky Cheston



WBoy, would I like to meet this guy!" said Skip, looking up from his newspaper. It was Saturday morning and Vikki, Skip and Ricardo were hanging around the office.

"Let me see that," said Vikki, taking the paper from Skip's hand. "Oh," she said, smiling at the headlines. "Detective Wilmington again. He's been in the news a lot lately. Last week he caught some kidnappers. Now he's tracked down a gang of bank robbers."

"It looks like we've got some competition," answered Skip. "Wilmington has solved five cases in the last two weeks."

Just then, the door swung open. There stood a tall, distinguished-looking man with a grey beard, dressed in a three-piece suit. It was Jeremy Farnsworth, from the Sherwood Museum.

"The Bloodhound Gang, I presume?" he said, and stepped into the office. "I need your help!"

"The Crown Jewels have just been stolen!"

"Wow!" exclaimed Ricardo. The Crown Jewels were a priceless collection of necklaces, bracelets, rings and other jewels—a fortune in diamonds, rubies and gold.

"How did it happen?" Vikki asked.

"We haven't a clue," said Farnsworth. "The thieves came and went without a trace."

"Don't worry," Ricardo told him. "We'll track

down those crooks, or our name's not the Bloodhound Gang."

Just Good Scents

When Vikki, Skip and Ricardo arrived at the Sherwood Museum, Farnsworth showed them into the exhibit hall. It was empty, except for a couple of police officers, and a droopy-eared dog.

"As you can see," said the director, "there are no broken windows, and the doors were all locked when we arrived. But the robbers set off the alarm when they took the jewels. That was only an hour ago."

The three Gang members split up and searched the hall for clues. There were a few paintings on the walls, and a beautiful Oriental rug covered part of the floor. Two large glass display cases stood in the middle of the room.

All of a sudden, Ricardo called out.

"Look what I found!" he yelled. He was holding up a single black leather glove.

"Great!" exclaimed Vikki, as everyone gathered around. "Maybe it can give us a lead."

The glove was medium-sized, for a left hand and had a thin fur lining. But there were no store labels and no other markings on it.

"Let me see that," said one of the police, and

Ricardo handed the glove over. But instead of looking at it himself, the officer dangled the glove in front of the dog's nose. Excited, the dog began sniffing and slobbering.

"Hey!" shouted Ricardo. "Get that mutt out of here! That's important evidence."

But the dog had already backed off. Now he was walking back and forth quickly with his nose to the floor. Finally he stopped on top of the rug and began barking loudly.

"I think he's found something," said the officer.

"Yeah?" giggled Skip. "Well, I sure hope he's housebroken."

"Someone remove that creature immediately!" shouted Farnsworth.

But the police officer bent to the floor and began rolling back the rug. Everyone gasped. Where the rug had been was a hole in the floor, big enough for someone to squeeze through.

"So that's how they got in!" cried Vikki.

"But how did the dog know?" asked Skip.

"Oh," the police officer said apologetically. "Pardon my manners." He pulled the dog to his side. "Bloodhound Gang, allow me to introduce Detective Wilmington!"

Paws in the Chase

"A real live bloodhound!" shouted Skip. "Pleased to make your acquaintance," said Vikki, bending down to shake Detective Wilmington's paw. "What is the secret of your success?"

"Wilmington's sense of smell is much better than ours," said the officer. "The thieves' scent from the glove led him to the tunnel."

"Big deal," Ricardo grumbled. "So he can smell things. That doesn't make him a detective. He can't figure out a mystery, and besides...."

"Besides, you're just jealous, Ricardo," Vikki interrupted. "I think it'll be great for us to work on this case together. And a little competition might keep us on our toes."

"Okay," said Ricardo. "May the best man win."

"Or best dog," added Skip.

"Well, what now?" asked Farnsworth.

"Why don't you ask Detective Wilmington?" Ricardo asked sarcastically.

"We follow the tunnel," said Vikki.

"Oh dear," said Farnsworth, looking down into the dark hole. "I was afraid of that."

The police officers took out their flashlights and everybody climbed down into the tunnel. It was dark and wet.

"Wow!" Skip exclaimed. "This is huge! The crooks must have been tunneling for days."

"I don't think so," said Vikki. "Look at the walls. We're in an old water pipe."

"But where does it lead?" asked Farnsworth.

"We won't know until we get to the end,"

Vikki replied. "Let's hurry!"

"But which way?" asked Skip. The old pipe went in two directions.

"This way, I think," said Ricardo, pointing to his right.

Just then, Detective Wilmington started barking and took off to the left.

"Sorry, Ricardo," Vikki laughed. "Seems like Detective Wilmington disagrees."

"Yeah," added Skip, "And in this vote, the 'nose' have it."

Everyone, including Ricardo, followed after Detective Wilmington. Soon, they heard a rustling sound and felt a breeze.

"Look!" Skip cried. "I see a light!"

As if he agreed with Skip, Detective Wilmington started barking. Everyone hurried toward the end of the tunnel. A minute later, they all tumbled out into the bright sunshine.

Vikki blinked her eyes in the bright light. "That explains the rustling noise," she said. She was looking at hundreds of trees that were swaying in the wind. The group was in the woods.

"Where now?" asked Skip.

"I think we're going to need Detective Wilmington's help again," said Vikki.

"Why?" protested Ricardo. "We can just look for footprints or broken twigs or something." ➔





"Footprints can be covered by leaves and...," Vikki started to explain, but Skip interrupted.

"I don't think Wilmington cares about footprints," he shouted. "Look at him go!"

The bloodhound was racing through the woods, with the police officers trailing behind.

"Come on!" Skip shouted.

Ten minutes later, the searchers were still running through the woods.

Suddenly, Ricardo yelled out, "Wait a minute!"

The path they had been following split into a fork, with paths branching off to the right and to the left.

"Look at this," Ricardo called.

On the ground lay another black glove, just like the one they'd found in the museum.

"They must have taken the right fork," said Ricardo, as he picked up the glove.

"But Wilmington wants to go the other way," Skip pointed out.

Sure enough, the bloodhound was barking and running up and down the left-hand path.

"I say we follow Wilmington," said Vikki.

"The thieves could have planted the glove the just to throw us off."

"I agree," added Farnsworth. They took off after Wilmington again, with Ricardo bringing up the rear. They raced around a bend and down a slope and suddenly came to a stop. The path ended at the edge of a river.

"Great," said Skip. "If the crooks went into the water, Wilmington will lose their scent."

"No problem," said one of the officers. "We'll just take him over to the other bank."

The Crooks Are Collared

There was a bridge a few hundred yards away. They crossed over and Detective Wilmington started sniffing along the bank. But after five minutes, he still hadn't found the scent.

"What now?" asked Skip.

"Maybe it's time for the Bloodhound Gang to pick up where the real bloodhound left off," said Ricardo. He borrowed a pair of binoculars from the police and began scanning the river.

"Do you see anything?" asked Vikki.

"I'm not sure," said Ricardo and handed her the binoculars. "Take a look at that."

Ricardo pointed to a spot near the river bank where a bunch of tall weeds were bent by the current. In the middle of them were two weeds that looked thicker than the rest. And they weren't bent.

"Are you thinking what I'm thinking?" Vikki asked Ricardo.

"Snorkels!" they yelled together. "The thieves are hiding under water!"

"Officers!" Ricardo called to the police. "You better send for reinforcements—and towels. Our burglars are getting waterlogged."

Soon police scuba divers arrived and out of the water came two wet thieves and the jewels. Everyone gathered around to admire the treasure—except for Ricardo. He had made friends with Detective Wilmington.

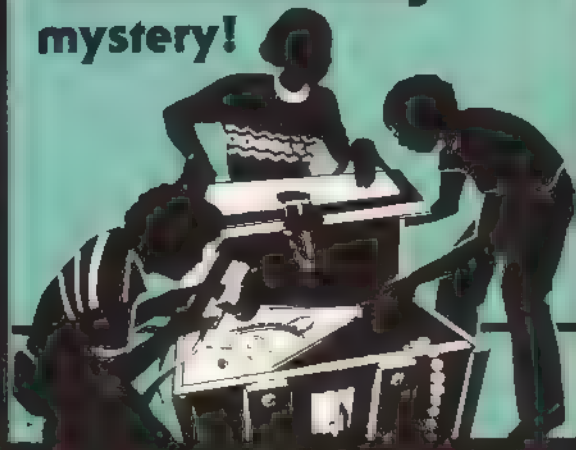
"Well, old buddy," he said, scratching the dog behind its ears. "It looks like we'll have to share the headlines on this one. I guess us bloodhounds have got to stick together."

Vikki looked at Ricardo. "You know, you two have something in common," she said.

"You mean, we're both great detectives?" asked Ricardo.

"No, I mean your bark is worse than your bite." 

**Watch for next month's
Bloodhound Gang
mystery!**



Pet Puzzlers

by Rebecca Herman

A CONTACT QUIZ

Think about an animal. Chances are good that somewhere it's kept as a pet. In Japan, many children tame mice and teach them to dance. Some children in Mexico keep fleas as pets. Australian children sometimes have pet kangaroos.

But what about more usual pets? How much do you know about cats, dogs and goldfish? Take this quiz and find out.

1. You can teach your parakeet to talk.
True or False?
2. You should wash your dog once a week.
True or False?
3. Cats use their whiskers to feel things.
True or False?
4. Turtles like to eat hamburgers.
True or False?
5. Wild animals make good pets.
True or False?
6. Frogs and toads are the same animal.
True or False?
7. When a goldfish opens and closes its mouth, it is drinking.
True or False?
8. Guinea pigs mow lawns.
True or False?



1

QUIZ ANSWERS

True You might be able to teach your parakeet to say a few words and phrases. Start with something easy, like the word "hello." Repeat it over and over for 20 minutes. It's boring, but it works! Always say the word in the same tone of voice. Sooner or later, probably in a few days, the parakeet should try to imitate you. When it does, repeat the word slowly and clearly, again and again.

When the bird learns its first word and says it well, start on another word or phrase. Soon your parakeet will be a real chatterbox. Polly want a cracker?

2

False You may need a bath more than once a week, but your dog doesn't. In fact, washing a dog too often can dry out its skin.

A dog has naturally oily skin. Oil protects the skin and keeps it soft. Soap rinses away the oil. This makes the dog itchy and scratchy.

The best way to keep your pooch clean is to brush it often. Bathe your dog only when it really needs it.



hello

3

True Whiskers are very important to a cat. You know about the long, stiff hairs on its upper lip. But a cat also has whiskers on its chin, cheeks, above its eyes and on the back of its front legs!

All hairs on a cat's body help it to feel things. But whiskers are extra sensitive.

You won't see the whiskers feeling things the way your fingers touch things, but they are doing their job. They even pick up tiny air vibrations bouncing off solid objects. That helps the cat move about in the dark without bumping into things.

4

True But hold the pickle and ketchup! The hamburgers turtles like to eat are the raw kind.

Most turtle food that you buy in the store is made of dead bugs. But in the wild, turtles eat worms, beetles, fish and, sometimes, plants. So make a turtle happy. Drop bits of raw fish or some finely-cut raw hamburger meat into its tank. Your turtle might even like to munch on a little lettuce or spinach. Offer it bits of bananas and grapes, too!

False The problem with cuddly, little lion cubs is that they grow up to be not-so-cuddly, big lions. Smaller animals may be less dangerous. But wild animals don't make good pets. No matter how tame it may seem, any wild animal will always be just that — wild.

Of course, you can always invite some small wild animals to your backyard for a visit. Why not make a wild bird feeder? The nut string feeder is an easy one.

With needle and thread, string together some unshelled peanuts. Hang them from a branch. Before you know it, you will have some fine-feathered friends.

False But frogs and toads do belong to the same family — the same way alligators and crocodiles are both reptiles. But 'gators and 'cros are slightly different, and so are frogs and toads.

Frogs have smooth, moist skin. They live near or in water. Toads have bumpy, dry skin. They return to the water only to mate and lay eggs. Some people think if you touch a toad you'll get warts, too. But that's just a toad tale.



False Goldfish look like they're drinking all the time. Actually, they open their mouths to breathe. Like you, fish need oxygen to live. You get oxygen from air. Fish can only get it from water.

As the water is sucked in by the fish, it passes out through two slits on either side of the head. Under these slits are the fish's gills. Gills act like strainers. They trap the oxygen the fish needs.

The gills contain millions of tiny blood vessels. The oxygen slips through these tiny tubes and enters the blood stream. Then the oxygen travels all through the body. Pretty fishy, huh?

True Not with tiny lawn mowers, but with their teeth! Just like cows and sheep, guinea pigs like to eat grass. If you had enough of these little critters, they could mow your lawn.

Treat your pet to some grass once in a while. It will give the guinea pig the vitamin C needed to stay healthy. Of course, you cannot let your pet out to graze like a cow. But you can take some crispy grass from your lawn or the park, and put it in the cage. Sure enough, your guinea pig will munch away.



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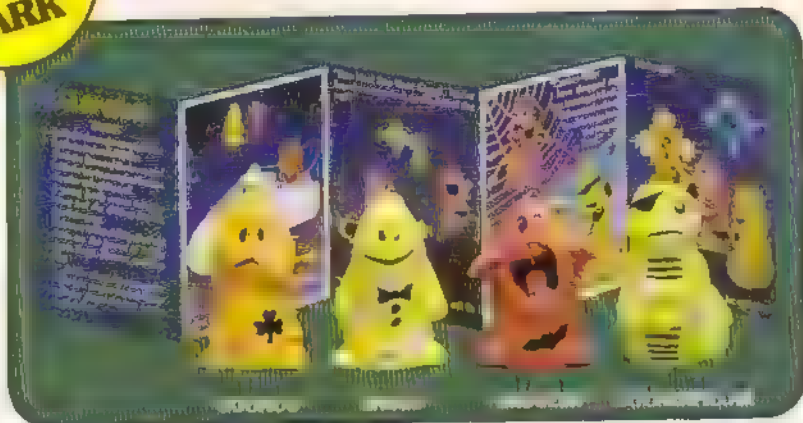
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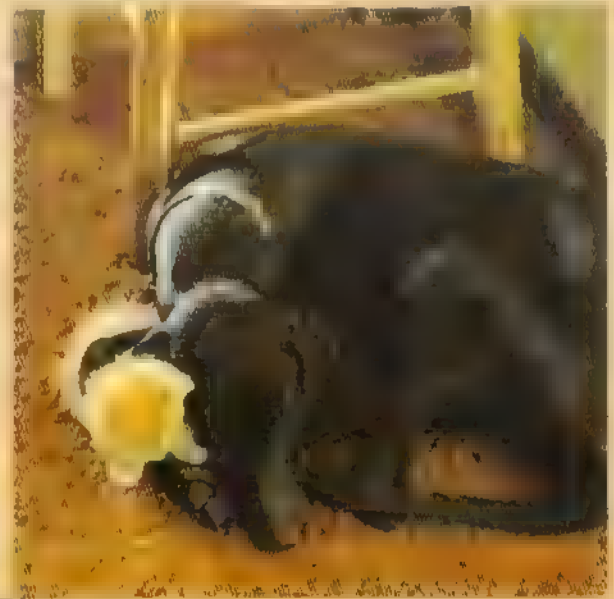
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Isn't That Cute? Thanks to everyone who entered our "Cute Contest" (November 1985) We had a tough time picking out the most adorable photos and drawings, but here are some of our favorites.

Scruples—one cool cat.
Tiffany Fiehn, Houston, Texas

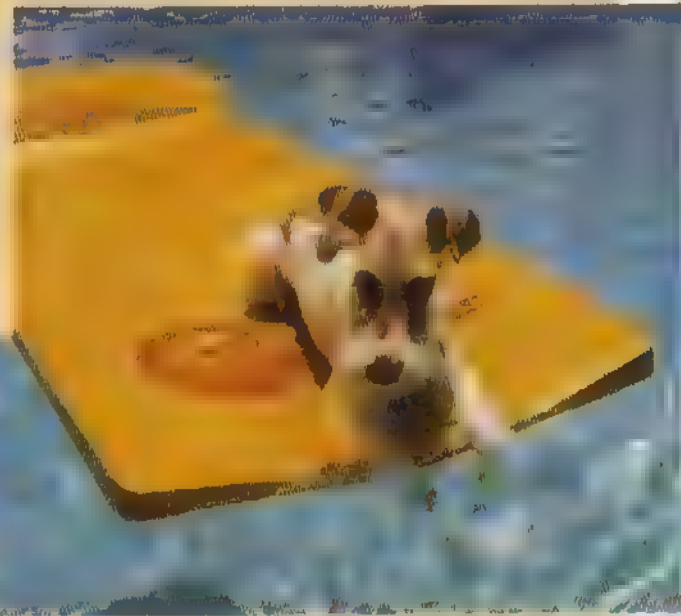


"That's my dog, Zack—the leader of the pack."
Melody Creed
Jacksonville, FL



"We think this picture is cute because it puts a feeling of love into you!"
Casey and Darcie Westerman
St. Anne, IL

"Here's our Siamese dwarf bunny, Cottonball, visiting a real live doll."
Jenny Chmura
Chatham, NJ



McCartney—a wire hair fox terrier just leading the dog's life.
Stephanie de Bry, Indialantic, FL

ENTER

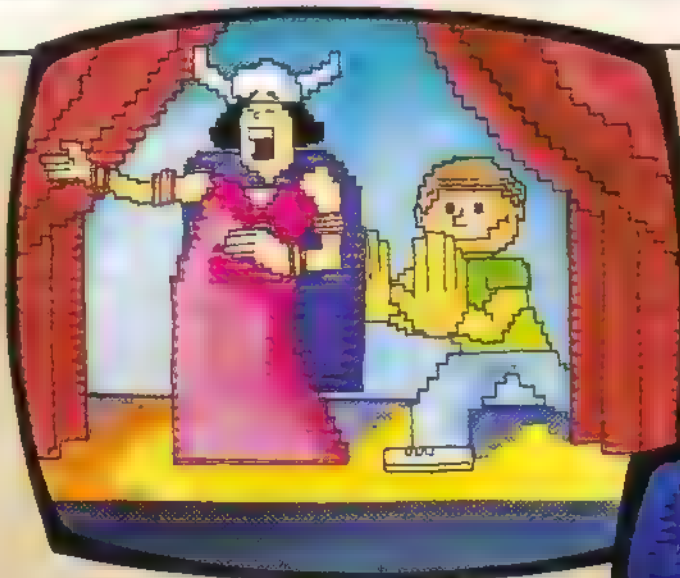
THE
HIGH-TECH
WORLD OF
COMPUTERS

Games Gone Gonzo

A few issues back,
we asked you to send in the craziest,

weirdest video games you could
make up. After reading hundreds
of really strange games, we picked

these three. We think you'll agree
that they deserve to be called
Games Gone Gonzo.



Opera Time

by Jenny Wetzel, 11, of Baltimore, Maryland

In this game, you are forced to go to the opera by your date. You have 35 seconds to sneak past your date and push the opera singer off the stage. You score 100 points for every row of seats you jump over and 1,000 points for getting past an usher. Better be quick, or the singing will put you to sleep.

Space Bath

by Andrew Currier, 11, of Webster, New York

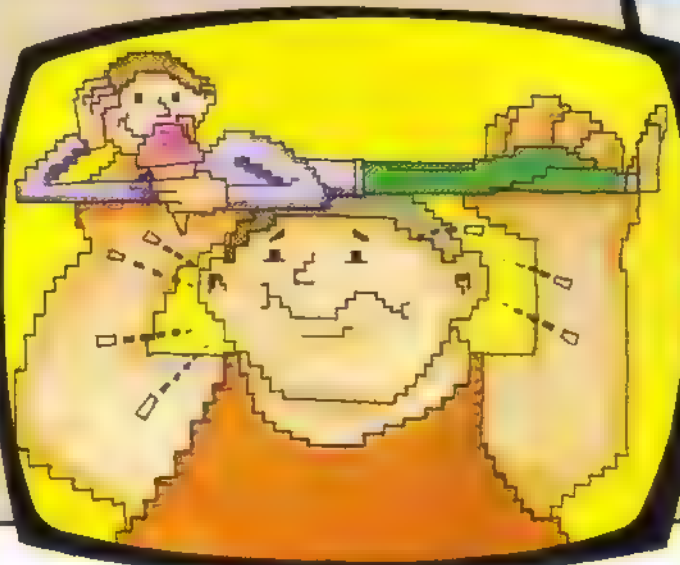
You are a moon colonist, but you still have to take baths! It isn't easy in the lunar low gravity. The water keeps floating out of the tub! You have to figure out a way to get clean without taking off your spacesuit.



Fatman and Ribbon

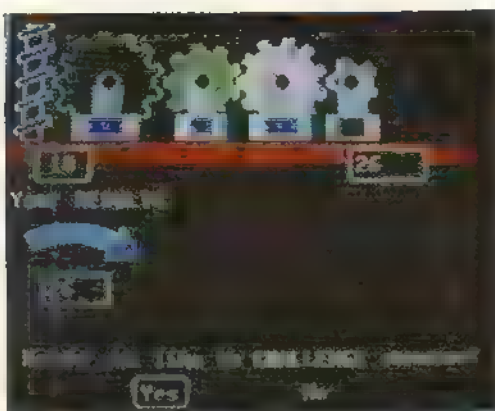
by Matt Boulanger, 8, Hinesburg, Vermont

You control two characters, Fatman and Ribbon. Fatman is in an exercise center and Ribbon is in an ice cream parlor. To win, you must get Fatman to lose 300 pounds. Meanwhile, Ribbon has to gain 150. But watch out—if you don't work fast enough, they will switch places!



REVIEWS

by Phil Wiswell and Bill Gillette



Gears: Strategies in Problem Solving

(Sunburst, Apple II, \$59; also for the IBM PC, TRS-80 Color Computer)

This highly original, educational program was designed for classroom use. It is not the kind of game that will keep you glued to your TV screen for hours on end. This program is an excellent way to learn about gears and energy by turning the lesson into a challenge on your video screen.

The program allows you to experiment by putting together different size gears into a gear train. Then it gives you problems to solve. If the first gear in a train turns clockwise, in what direction will the last gear turn and how fast?

Wrap-Up

Bill: This is an interesting idea, but it just keeps repeating over and over.

Phil: That's true. But repeating helps you to learn a difficult idea. This program will really make you think. If you like brain teasers you'll like Gears.

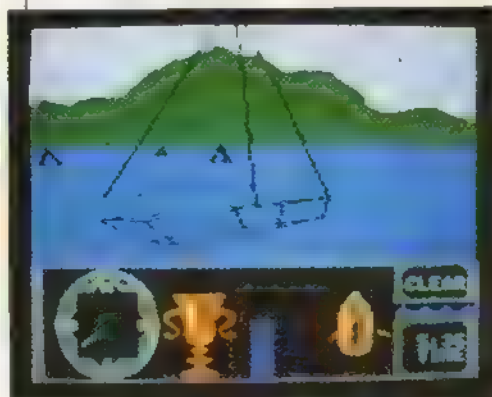
The American Challenge

(Mindscape, IBM/Apple II, \$40)

This is a wonderful game that really teaches you about sailing boats. You can learn to sail, then race against the computer or another player. And the program even lets you race over the phone lines with modems. That way you can race against a player in another state!

In the Practice Mode you can sail to your heart's content and get used to controlling your boat. You use the keyboard to pull in or let out your sail, steer with the rudder or make other changes. A compass, wind speed and direction, boat speed and time are displayed at the bottom of your screen. The rest of the screen shows you the water, markers for the course you are sailing, your boat, and sometimes your opponent's boat, depending on the view you select.

There are seven race courses you must complete before you can enter the Cup Race. There is also a motor boat option, in case you get tired of sailing, but it isn't half as much fun.



Wrap-Up

Phil: The graphics of this game are nothing special, but you still get the feeling you are sailing. I go out for at least an hour's sail every night after dinner.

Bill: There is nothing else quite like this. The best is playing by modem.

Fooblitzky

(Infocom, IBM PC, \$40; also for most home computers)

Fooblitzky is a board game for two to four players that you play with a computer. Hurray for multiple player games that are as much fun as this one.

In this game, each player plays the part of a dog wandering the 12 streets of a city called "Fooblitzky." The object of the game is to be the first player to collect four objects from different locations on the board. The problem is there are 18 different objects and 36 locations. In each game, the four objects you need are different.

Each player has his or her own board with a map of the city and a worksheet to help you keep track of what you've done. The computer decides which objects are the ones you need in each game. It also spins a wheel to tell you how far you can move on each turn.

Wrap-Up

Bill: The game is a first for Infocom and a great first!

Phil: Fooblitzky is recommended for age 14 and up but younger players will enjoy it also.



Jet

(SubLogic, IBM PC, \$49.95)

We were really looking forward to this program. We enjoyed SubLogic's *Flight Simulator* and we thought a faster plane would give us more thrills and excitement. We are very sorry to report our disappointment with *Jet*. (For a quick report, skip to Bill's comment.)

What's wrong with *Jet*? Well, whether you select a land or carrier-based jet, the scenery isn't exciting. In fact, it's confusing. At times we couldn't tell what we were looking at. The animation is way too slow. And there is no sound (at least on the IBM version we tested). We found it difficult to maintain any interest.

Just getting off the ground in the first hour of play is a big accomplishment. You have a choice between an F-16 and an F-18 fighter jet. There is also a dogfight mode, which lets you fight with other jets, if you get that far. Maybe the problem is that flying a real jet just isn't a game.

Wrap-Up

Phil: Graphics on the IBM were crude at best, and without sound I could have gone to sleep during a nosedive. Leave it in the hangar.

Bill: One word: boring.

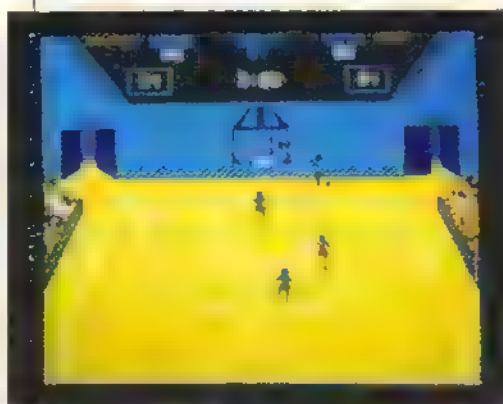
GDA Championship Basketball: Two On Two

(GameStar, Commodore 64, \$35)

This is a basketball game that gives you a team of two players to control. You can play against the computer or against a friend. The computer has 23 teams to choose from, modeled on real superstar basketball players.

When does two plus two add up to less than one plus one? When you compare this full-court basketball game to the half-court *One-On-One* by Electronic Arts. Having two players on your team requires more strategy because you can pass the ball back and forth. But we find *One-On-One* a lot more enjoyable.

One good point about *Two-On-Two*: When you control the player on your team who has the ball, the computer will help you out by controlling the other team member. Also there is a wide variety of shots and moves you can make.



Wrap-Up

Bill: The players are too small and it is difficult to see who has the ball when everyone is jumbled in one place.

Phil: True enough. But it sure is fun to make up a team out of the star players.



Murder on the Mississippi

(Activision, Commodore 64, \$35; also for the Apple II)

Murder on the Mississippi is very much like Activision's great *Murder on the Zinderneuf*. As you might guess, this time the murder mystery takes place on a Mississippi riverboat. As player-detective, you search the four decks and 24 rooms of the boat for clues.

You move around by using the joystick, which makes this game a breeze to play. Any information you learn can be recorded in a "notebook" so you can review it later or show it to other passengers. Sometimes you learn a lot talking to other passengers and sometimes you learn nothing at all. It all depends on who you talk to and what questions you ask.

You have three "days" to figure out "who did it" and you must use your time wisely if you want to solve the mystery.

Wrap-Up

Bill: I like it, but it is a very tough case to crack.

Phil: The graphics and animation really bring this game to life, and using the joystick makes it easy to play.

basic TRAINING

PROGRAMS FOR YOUR COMPUTER

Spray Paint

Atari 800/400, 800XL/400XL

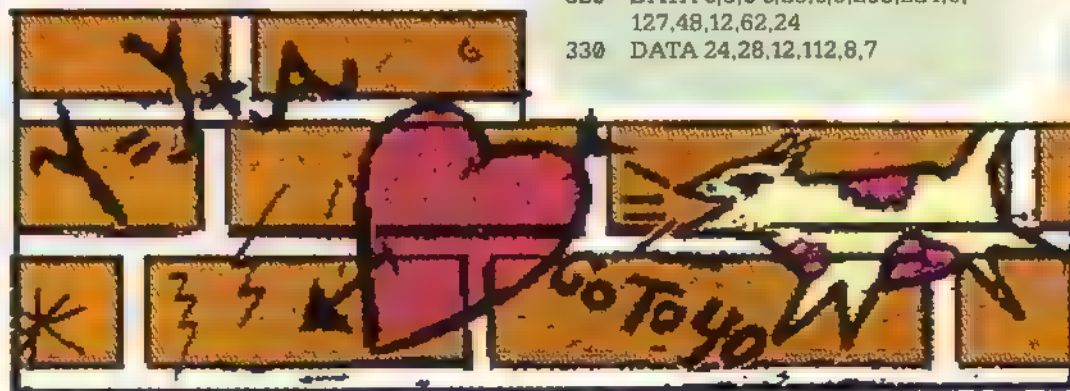
Here's a chance to spray some graffiti without getting into trouble. With this program, you can "spray" lines of color across your television screen. It's fun, and it's easy to clean up—just turn off your computer.

Thanks to **Shaun Steinhorse**, 13, of Baraboo, Wisconsin for this pigment of his imagination.

```

10  GRAPHICS 8 + 16
20  SETCOLOR 2,0,0
30  X = 160:Y = 80:COLOR 1
40  S = STICK (0)
50  IF PEEK (53279) - 6 THEN
    GOTO 10
60  IF S = 7 THEN X = X + 1
70  IF S = 11 THEN X = X - 1
80  IF S = 13 THEN Y = Y + 1
90  IF S = 14 THEN Y = Y - 1
100 IF S = 5 THEN X = X + 1:
    Y = Y + 1
110 IF S = 9 THEN X = X - 1: Y = Y - 1
120 IF S = 6 THEN X = X + 1: Y = Y - 1
130 IF S = 10 THEN X = X - 1: Y = Y + 1
140 IF X > 313 THEN X = X - 1
150 IF X < 6 THEN X = X + 1
160 IF Y > 183 THEN Y = Y - 1
170 IF Y < 6 THEN Y = Y + 1
180 IF STRIG (0) - 1 THEN PLOT
    X,Y:COLOR 0:PLOT X,Y:
    COLOR 1:GOTO 40
190 X1 = X + PEEK (53770)/25 - 5
200 Y1 = Y + PEEK (53770)/25 - 5
210 PLOT X1,Y1
220 GOTO 40

```



Aliens

Commodore 64

Look! There on your screen! Is it a bird? Is it a plane? No! It's two crazy aliens flying in different directions! Thanks to **Andrew Wiskow**, 11, of Aloha, Oregon for flying this program to us.

```

10  PRINT CHR$(147)
20  BG = 53248
30  TU = BG + 21
40  S1 = 2 * S4 - 16
50  L = 2040:SS = 832
60  SL = 13
70  X1 = BG + 2:Y1 = BG + 3
80  X4 = BG + 8:Y4 = BG + 9
90  C = BG + 39:C1 = C + 1
100 C4 = C + 4:RS = BG + 16
110 FOR R = 0 TO 29
120 READ D:POKE SS + R,D
130 NEXT R
140 FOR R = 0 TO 20
150 READ D:POKE(SS + 64) + R,D
160 NEXT R
170 POKE TU, S1 + S4
180 POKE L + 1,SL:POKE L + 4,SL + 1
190 POKE C1,13:POKE C4,10
200 POKE Y1,100
210 FOR H = 0 TO 255
220 POKE X4, H:POKE Y4,H
230 POKE X1,H:NEXT H
240 POKE RS,S1
250 FOR HH = 0 TO 63
260 POKE X1,HH:NEXT HH
270 POKE RS,0
280 GOTO 210
290 DATA 2,0,64,2,0,64,2,24,64
300 DATA 2,60,64,2,102,64,3,255,192
310 DATA 2,60,64,2,24,64,2,0,64,2,0,64
320 DATA 0,8,0,0,28,0,3,255,224,6,
    127,48,12,62,24
330 DATA 24,28,12,112,8,7

```

Hi-Tech Times Square

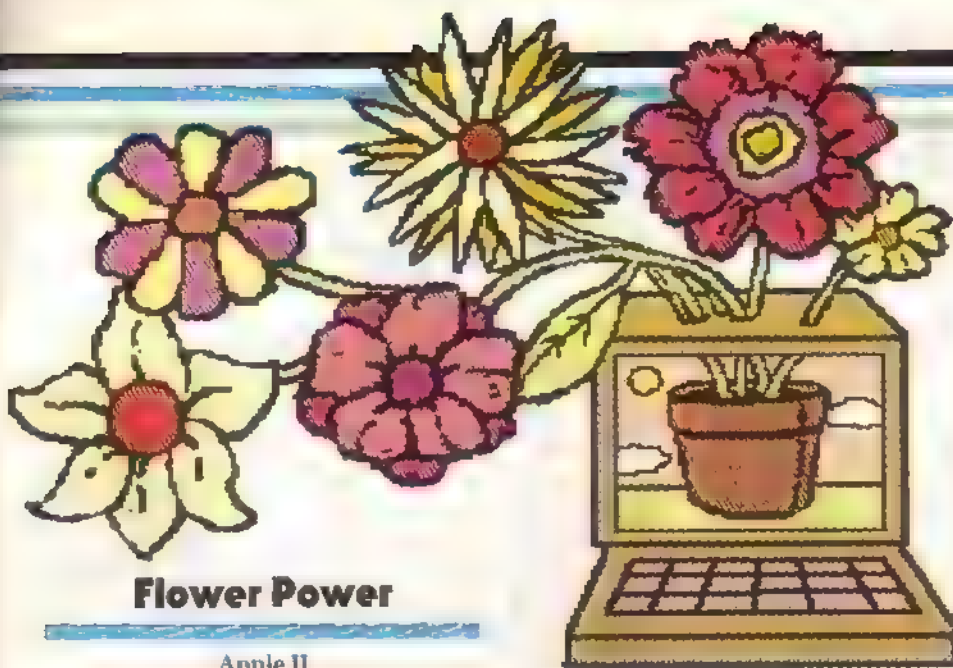
TI 99/4A

The neon lights are bright on Broadway in New York City. They are also bright in this program, written by **Conor Prischman**, 12, of Fargo, North Dakota. When we saw his colorful and noisy creation, we thought it looked like Times Square in the year 2001. See what you think.

```

10  RANDOMIZE
20  CALL CLEAR
30  FOR J = 1 TO 90
40  A = INT(RND * 24) + 1
50  B = INT(RND * 32) + 1
60  C = INT(RND * 94) + 33
70  D = INT(RND * 16) + 1
80  E = INT(RND * 16) + 1
90  F = INT(RND * 16) + 1
100 G = INT(RND * 12) + 1
110 H = INT(RND * 600) + 1
120 I = INT(RND * 10000) + 110
130 CALL SCREEN(D)
140 CALL HCHAR(A,B,C,10)
150 CALL VCHAR(A,B,C,10)
160 CALL COLOR (G,E,F)
170 CALL SOUND (H,I,0)
180 NEXT J
190 GOTO 20

```

Flower Power

Apple II

Danielle Lavigne, 12, of Shrewsbury, Massachusetts likes flowers so much she can't wait for them to grow. Instead, she has her computer grow them for her. You can have the same kind of green thumb, by using Danielle's program. It will draw hundreds of different styles of flowers. But sorry, it won't grow you another Apple.

```

10 HOME
20 PRINT "FLOWER PROCESSOR"
30 PRINT
40 PRINT "CHOOSE THE COLOR
  (1-5)"
50 INPUT C
60 IF C<1 OR C>5 THEN 10
70 PRINT "CHOOSE THE SIZE (20-
  80)"
80 INPUT S
90 IF S<20 OR S>80 THEN 70
100 PRINT "CHOOSE THE NUM-
  BER OF PETALS (3-63)"
110 PRINT "ODD NUMBERS
  ONLY!!!"
120 INPUT P
130 IF P/2-INT(P/2)=0 THEN
  100
140 IF P<3 OR P>63 THEN 100
150 J=P*S/2:X=J/3.141
160 HGR2:HCOLOR=C
170 FOR K=L TO J
180 I=K/X:L=S*SIN(P*I)
190 HPLLOT 120+L*COS(I),80+
  L*SIN(I)
200 NEXT K
210 FOR DE=1 TO 4000 NEXT
220 TEXT,HOME
230 INPUT "WOULD YOU LIKE TO
  GROW ANOTHER? Y/N":A$
240 IF A$="Y" THEN 10

```

Pick A Picture

IBM PCjr, PC with color graphics card

This program gives you a choice. You can look at a design of many colorful boxes, you can look at circles, or you can look at something that's hard to describe. Type in the program and see for yourself.

Pick a Picture was picked out for us by Sean Finan, of Pittsburgh, Pennsylvania.

```

10 CLS:SCREEN 0
20 RANDOMIZE TIMER
30 PRINT "CHOOSE ONE"
40 PRINT "BLOCKS...1"
50 PRINT "CIRCLES...2"
60 PRINT "???.....3"
70 PRINT "END.....4"
80 PRINT
90 PRINT "TO RETURN TO THIS
  SCREEN DURING GRAPHICS
  DISPLAY, PRESS ANY KEY"
100 INPUT "CHOOSE DISPLAY":A
110 IF A<1 OR A>4 THEN 10
120 ON A GOSUB 150,230,310,140
130 GOTO 10
140 END
150 CLS:SCREEN 1
160 A=638*RND:B=398*RND
170 C=638*RND:D=398*RND
180 E=3*RND:X=15*RND
190 COLOR X
200 LINE(A,B)-(C,D),E,B
210 K$=INKEY$:IF K$="" THEN
  160
220 RETURN

```

```

230 CLS:SCREEN 1
240 A=638*RND:B=398*RND
250 C=60*RND:D=5*RND
260 E=18*RND:X=15*RND
270 COLOR X
280 CIRCLE(A,B),C,,,D/E
290 K$=INKEY$:IF K$="" THEN
  240
300 RETURN
310 CLS:SCREEN 1
320 A=111*RND:B=100*RND
330 C=15*RND:D=50*RND
340 E=50*RND:F=A+D
350 G=B+E:Z=3*RND
360 LINE(A,B)-(F,G),Z
370 COLOR C
380 I=30*RND:R=30*RND
390 H=F+I:J=G+R
400 LINE(F,G)-(H,J),Z
410 T=20*RND:Y=20*RND
420 Q=H*T-W-J-Y
430 LINE(H,J)-(Q,W),Z
440 K$=INKEY$:IF K$="" THEN
  320
450 RETURN

```

Corrections

In our March issue, Song Maker contained a second line numbered 220. Remove that line and the program is correct.

In our May issue, line 200 of Mind Reader for the Commodore 64 was wrong. It should read:
200 A=0 B\$="" C\$="" NEXT Y

Send Us Your Programs

If you've written a program you'd like us to print, send it in. Include a note telling us your name, address, age, T-shirt size and type of computer. If we like it, we'll print it and send you \$25.

All programs must be your own original work. We cannot return programs. Please do not send disks.

Send your program to:

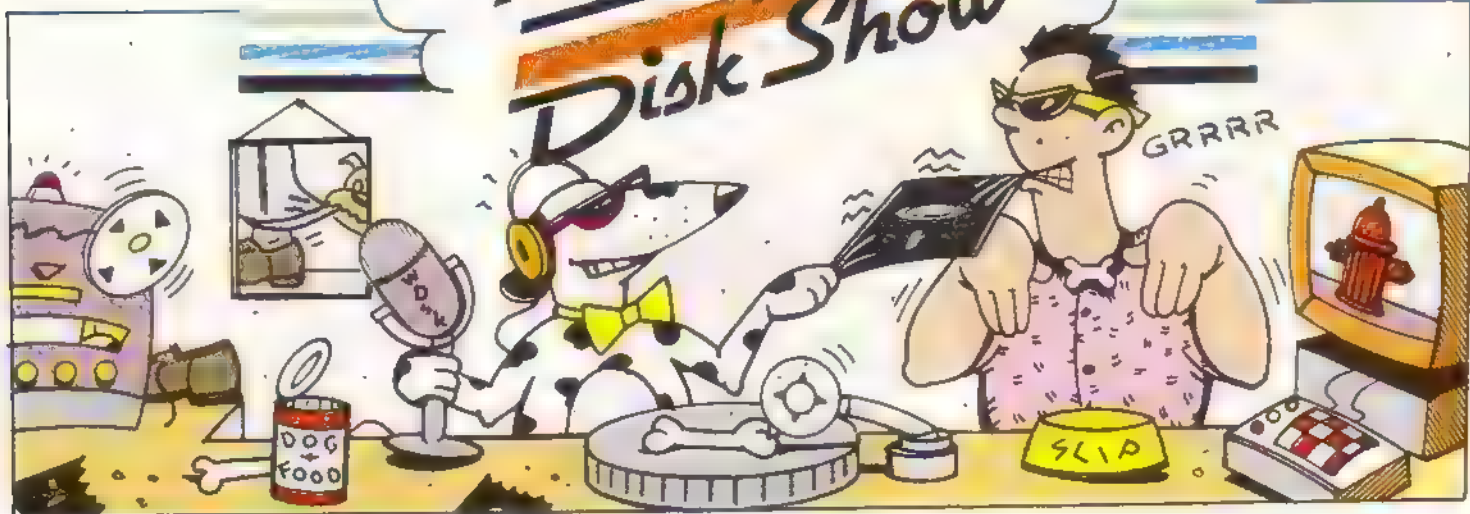
Basic Training

3-2-1 CONTACT Magazine

1 Lincoln Plaza

New York, N.Y. 10023

The Slipped Disk Show



Hi there! This is Slipped Disk, the floppy disk jockey, and I hope you all have some good questions because this month I have a special guest. Not only is he one of the greatest computer experts of all time, but I'm proud to say he's also a personal friend of mine. So let's hear a big round of applause for my dog, Floppy!

Floppy, I'd like to thank you for taking time out of your busy schedule to be with us today. Are you ready to answer the first question? Floppy says he's ready.

The first question is from **Rosanna Shiu**, of Forest Hills, New York. Rosanna wants to know:

"What is an interface?"

Well, a great computer expert like Floppy should have no trouble with a simple question like that. Floppy? Floppy, stop chewing on that keyboard and answer the question! Hmm, I guess Floppy isn't ready to answer questions yet.

But if he was ready, I bet Floppy would say that in computer terms, an *interface* is any place where data passes back and forth. For example, a keyboard is an interface between a human (or a dog) and a computer.

Usually when computer experts like Floppy and me use the word *interface*, we're talking about an

electronic port or socket in a computer. A port is where you plug in a peripheral like a printer or a disk drive. One very common computer port is called the RS-232 interface.

Well, I think Floppy would have done a great job answering that question, don't you? On to the next one, from **Michael Wall**, of Sunnyvale, California. Michael asks:

"How old do you have to be before you can use a computer?"

Okay, Floppy, what's the answer? Floppy? Floppy, stop licking the video screen and answer the question! Hey, I bet I know what's wrong! Floppy doesn't know if you want the answer in human years or dog years! Well, I guess I'll have to answer this one also.

Michael, there isn't any age when you're too young to use a computer. Some kids play computer games before they even go to kindergarten. There's even software designed for four and five year olds. But if you ask me, you don't really need to use a computer when you're that young. There's plenty of time to learn how when you get really old, like 11. (Which is 77 in dog years.)

Speaking of dogs, Floppy has time to answer just one more question. And here it is. **Clinton Nixon** of Eufaula, Alabama asks:

"What is K?"

A computer K-9 like Floppy ought to know the answer to that one, right, Floppy? Floppy? Sorry, folks, Floppy seems to have fallen asleep. But Clinton, I think I know what he would say.

Numbers like 128K or 256K tell you how much memory or room for data there is in a computer or a disk. "K" stands for kilobyte. A byte is one character (a letter or a number).

Since a kilometer is 1,000 meters, you might think that a kilobyte is 1,000 bytes. Not exactly. A kilobyte is actually 1,024 bytes. Computer memory comes in chunks of 1,024 bytes. Even though it's not exactly 1,000 bytes, these chunks are still called kilobytes.

Well, Floppy, you didn't answer a single question! No more Computer Chow for you! Floppy? Floppy, why are you growling like that? Uh-oh. Sorry folks, I've got to run. If you've got any computer questions, send them to:

The Slipped Disk Show

3-2-1 CONTACT

1 Lincoln Plaza,

New York, NY 10023

Good Floppy! Nice Floppy!
Down boy! Let me out of here!

Floppy the Computer Canine appeared as himself.

Jack and the Beanstalk

A FRACTURED FLOWCHART FAIRY TALE

by Richard Chevat

Next time your mother sends you to the store to buy something, think of the story of Jack and the Beanstalk. We tried to remember it, but somehow we got our Fee Fi Fo Fums all mixed up.

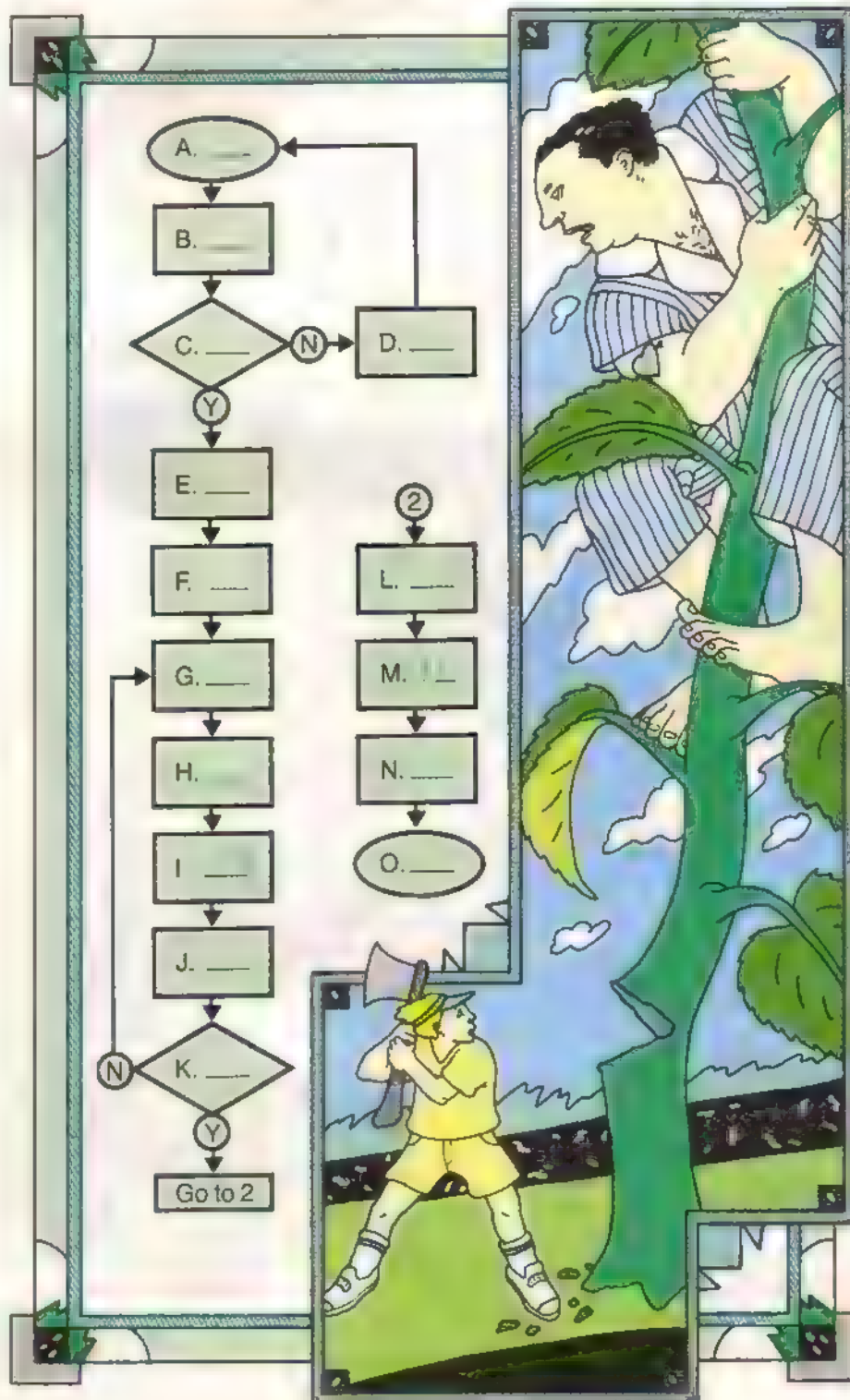
Here's our version of the story. Can you help us to straighten it out? Each sentence belongs in one of the boxes in the flowchart. All you have to do is put the number of the correct sentence in each box. We've done two to get you started.

The story should start at the top and follow the direction of the arrows. Remember, diamond-shaped boxes are for questions.

Have fun, and when you're done, you can always trade this puzzle for some magic beans.

1. Giant falls asleep
2. Jack's mother throws beans out window
3. Harp sings, giant wakes up
4. Jack hides in giant castle
5. They live happily ever after...
6. Jack trades cow for magic beans?
7. Jack chops down beanstalk
8. Once upon a time...
9. Jack climbs beanstalk
10. Sorry, wrong story
11. Giant chases Jack
12. Beanstalk grows overnight
13. Fee Fi Fo Fum, giant smells the blood of an Englishman
14. Jack takes cow to market
15. Got the harp?

Answer on Did It! page.



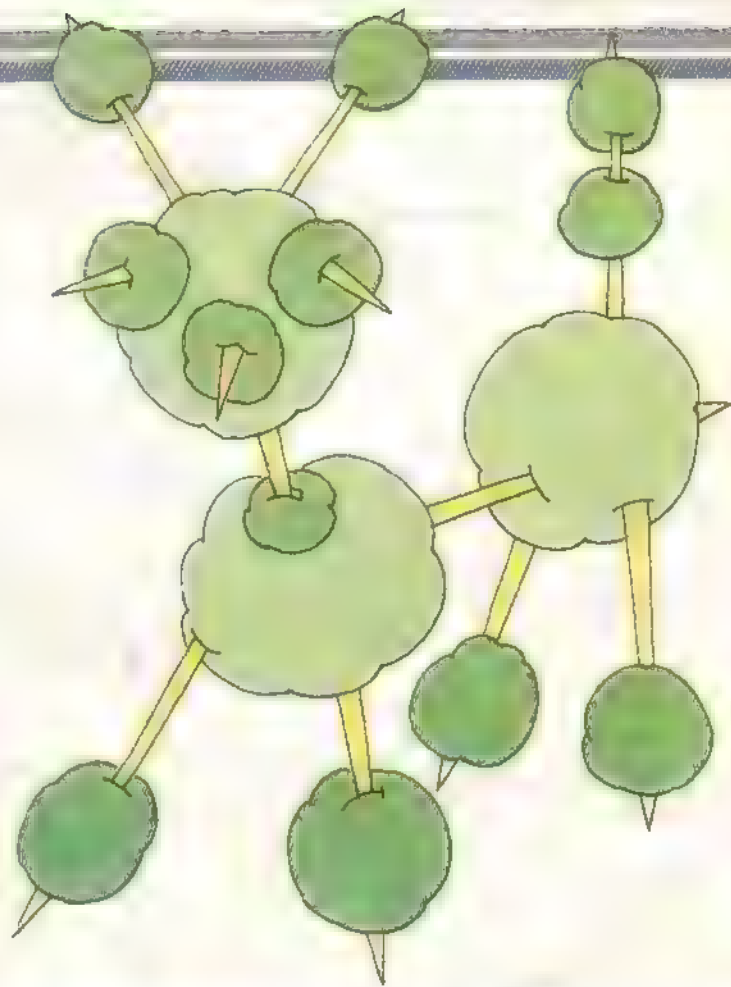
Extra!

We're not finished yet! There are plenty more pet surprises for you this month in EXTRA!

Pet Peas

Now's your chance to create some weird and wacky animal critters. All you need are some dried peas and toothpicks!

Place the peas in a bowl of water and soak them overnight. By just connecting the peas and the toothpicks, you'll be able to construct the most amazing pets. When you're all finished, let the peas dry out for two days. The peas will shrink and firmly hold the toothpicks.



Protecting Puppy

Adopting a dog as a pet is loads of fun, but is your home a safe place for your new puppy? Well here are some puppy pamphlets that will tell you all about bringing up doggie! Just ask for these booklets: "Puppies, Parents and Kids," "Your Dog's Passport to Health," and "Puppy Proof Your Home." Send a stamped, self-addressed business-size envelope for each pamphlet to: **The ALPO Pet Center**
P.O. Box 2187
Allentown, PA 18001

Cross-Witch Puzzle



Across

3. A large orange fruit you can carve.
5. A famous vampire.
8. This guy is all bones.
9. The opposite of day is _____.
10. He's all wrapped up.
13. Casper is a friendly _____.
14. Dracula turns into a _____ and flies to safety.
16. Vampires and werewolves have sharp white _____ (rhymes with hangs).
17. On Halloween night, the _____ shines down from the sky.
18. Trick or _____.
19. The witch flies past the moon on her _____.

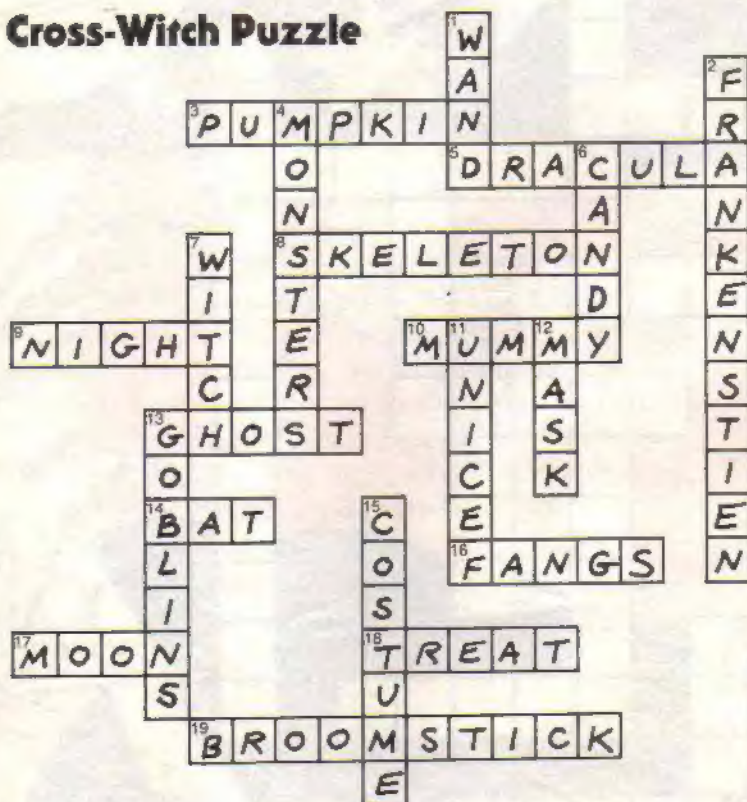
Down

1. Magicians use a _____ to make rabbits disappear.
2. A famous flatheaded monster; he had a bride.
4. Children haunt the night dressed like scary _____.
6. It's sweet and collected at every doorstep.
7. She wears a pointed black hat and flies on a broomstick.
11. Some trick or treaters collect money for _____.
12. It's worn to disguise the face.
13. Lots of kids dress up as ghosts and _____ on Halloween.
15. You wear a _____ on your body to look like your favorite Halloween character.

Answers on the Did It! page.

Did It!

Cross-Witch Puzzle



Thank You!

Thanks to our student interns Lynda Jones, David Link and Andrew Nachison for their help in putting this issue together.

Next Month!

Here's a quick look at what you'll discover next month in 3-2-1 CONTACT:

Fast Food for Thought

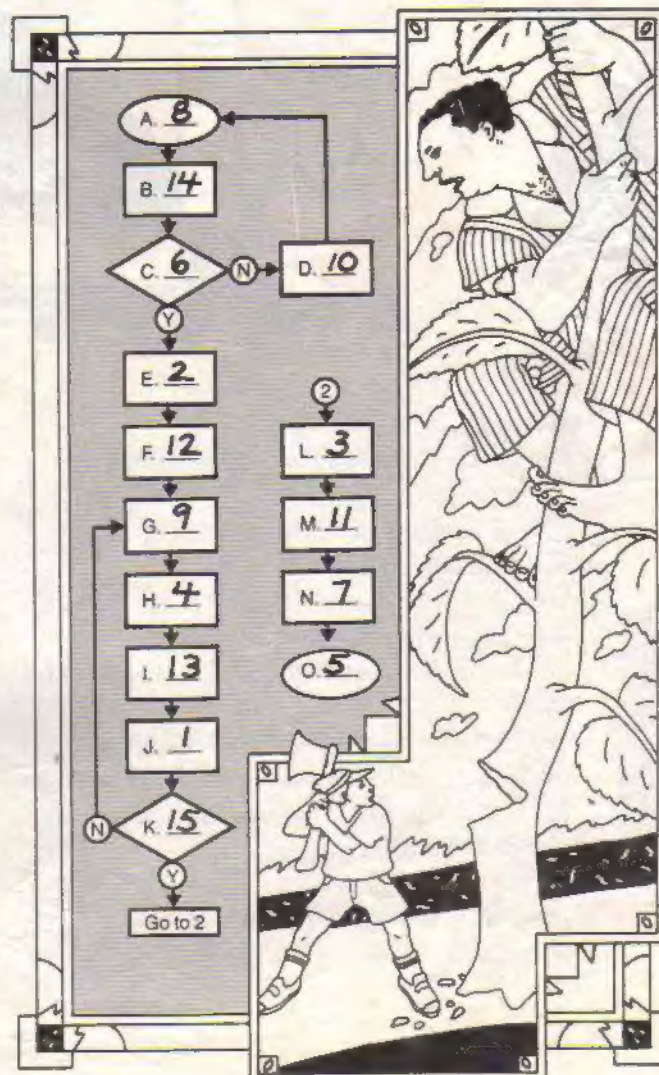
Hold it! Before you bite into that big burger or munch on those crunchy fries, find out some fast facts about fast foods.

Bug Man

Meet a scientist who is buggy over bugs. Not only does he study them, he gathers them for moviemakers who need creepy, crawly insects for their films.

Plus the Bloodhound Gang, ENTER Computer Section, TNT, Factoids, and much, much more!

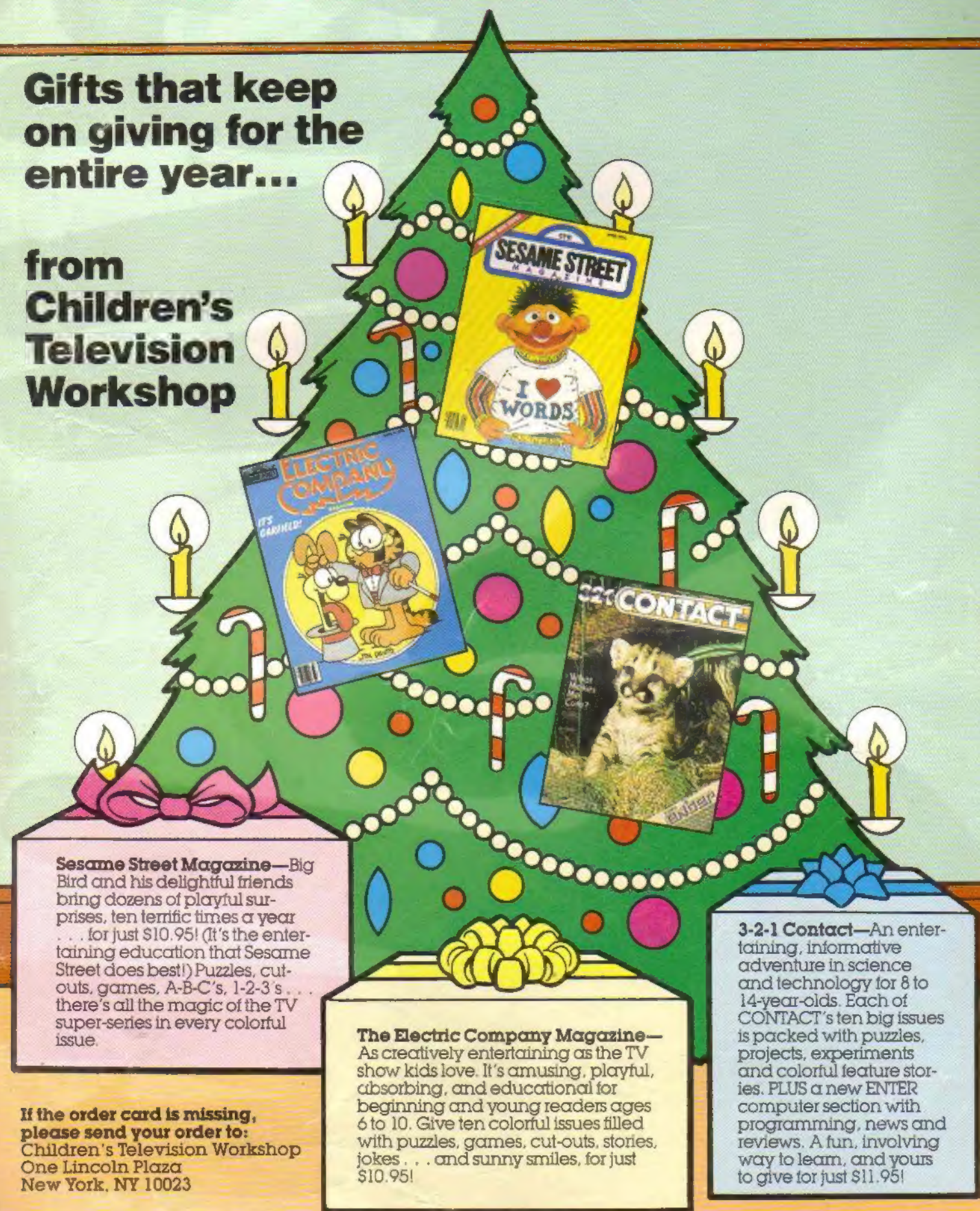
Fractured Flowchart Fairytale



HOLIDAY FUN

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